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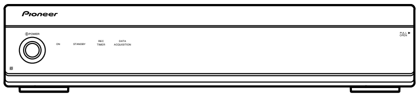
Service Manual


PDP-R05U

ORDER NO.
ARP3213

MEDIA RECEIVER

PDP-R05U

PRO-R05U

THIS MANUAL IS APPLICABLE TO THE FOLLOWINGMODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
PDP-R05U	KUC	AC120V	
PRO-R05U	KUC	AC120V	

For details, refer to "Important symbols for good services".

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T-ZZK SEPT. 2004 printed in Japan

SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

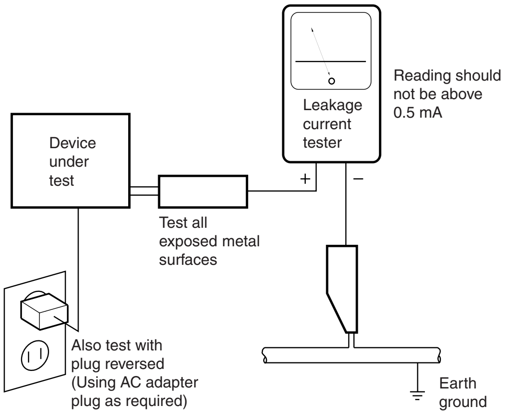
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.


Leakage current tester
Reading should not be above 0.5 mA
Device under test
+
–
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

[Important symbols for good services]
In this manual, the symbols shown-below indicate that adjustments, settings or cleaning should be made securely.
When you find the procedures bearing any of the symbols, be sure to fulfill them:

1. Product safety

You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

2. Adjustments

To keep the original performances of the product, optimum adjustments or specification confirmation is indispensable. In accordance with the procedures or instructions described in this manual, adjustments should be performed.

3. Cleaning

For optical pickups, tape-deck heads, lenses and mirrors used in projection monitors, and other parts requiring cleaning, proper cleaning should be performed to restore their performances.

4. Shipping mode and shipping screws

To protect the product from damages or failures that may be caused during transit, the shipping mode should be set or the shipping screws should be installed before shipping out in accordance with this manual, if necessary.

5. Lubricants, glues, and replacement parts

Appropriately applying grease or glue can maintain the product performances. But improper lubrication or applying glue may lead to failures or troubles in the product. By following the instructions in this manual, be sure to apply the prescribed grease or glue to proper portions by the appropriate amount.For replacement parts or tools, the prescribed ones should be used.

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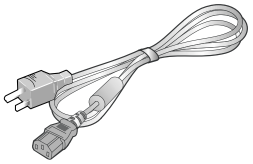
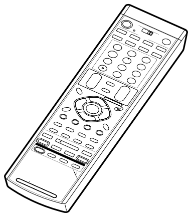
1. SPECIFICATIONS

Item			Media Receiver , Model: PDP-R05U
Reception System (Digital)			ATSC Digital TV system
	Circuit type		8VSB/64QAM/256QAM/QPSK demodulation
	Tuner	VHF/UHF	VHF 2-13ch, UHF 14-69ch
		CATV	2-135ch
	Audio format		Dolby Digital
Reception System (Analog)			American TV standard NTSC system
	Circuit type		Video signal detection PLL full synchronous detection, PLL digital synthesizer system
	Tuner	VHF/UHF	VHF 2-13ch, UHF 14-69ch
		CATV	ANTENNA/CABLE A IN: 1-135ch Cable: 1-125ch
	Audio multiplex		BTSC system
Terminals	Rear	ANTENNA/CABLE A IN	75Ω UNBAL, F Type for DTV/VHF/UHF/CATV in
		ANTENNA B	75Ω UNBAL, F Type for VHF/UHF/CATV in Loop out
		i.LINK (TS)	S400 (2)
		INPUT 1	COMPONENT VIDEO in, S-VIDEO in, VIDEO in, AUDIO in, HDMI in
		INPUT 2	S-VIDEO in, VIDEO in, AUDIO in
		INPUT 3	COMPONENT VIDEO in, AUDIO in, HDMI in
		Monitor Out	S-VIDEO out, VIDEO out, AUDIO out
		Digital Audio Output	Optical (1)
		VCR Control Output	1
		CONTROL IN	1
		CONTROL OUT	1
		Cable CARD	Point of Deployment
	Front	INPUT 4	COMPONENT VIDEO in, S-VIDEO in, VIDEO in, AUDIO in
		PC	Analog RGB in, AUDIO in
OSD			English/French/Spanish
Power Requirement			120 V AC, 60 Hz, 43.3 W (31 W Standby ,120 V)
Dimensions			420 (W) · 90 (H) · 295 (D) mm (16 $^{9}/_{16}$ (W) · 3 $^{9}/_{16}$ (H) · 11 $^{10}/_{16}$ (D) inches)
Weight			5.8 kg (12.8 lbs.)

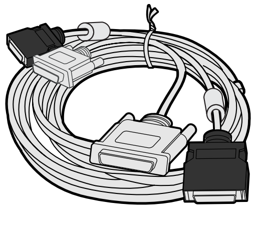
- Design and specifications are subject to change without notice.



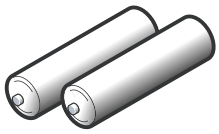
Power cord (2 m/6.6 feet)
(ADG1215)



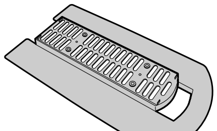
Remote control unit
(PDP-R05U : AXD1489)
(PRO-R05U : AXD1490)



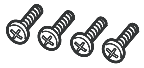
System cable (3 m/9.8 feet)
(ADF1029)



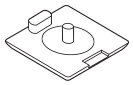
AA size battery x 2
(Alkaline battery)



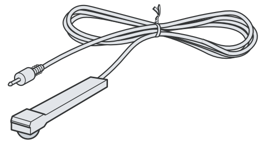
Stand
(PDP-R05U : AXG1013)
(PRO-R05U : AXG1009)



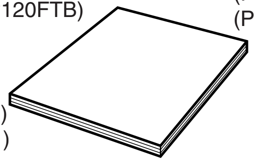
Screw x 4 (for stand)
(PMB40P120FTB)



Screw hole cap x 4
(PDP-R05U : AMR3363)
(PRO-R05U : AMR3386)



VCR controller x 1
(1.8 m/5.9 feet) (ADH1024)

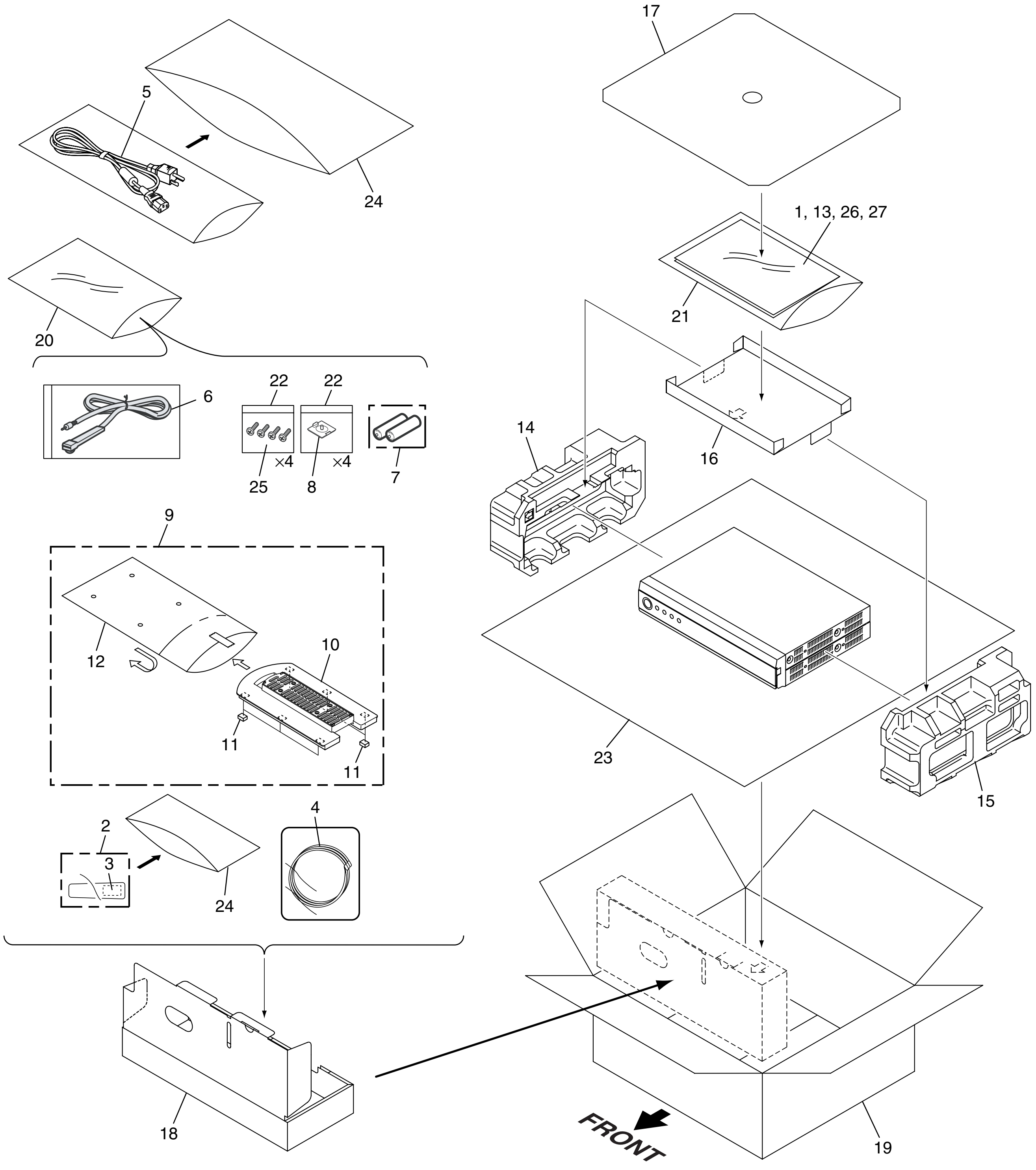


Operating instruction
(PDP-R05U : ARE1379)
(PRO-R05U : ARB1561)

2. EXPLODED VIEWS AND PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screws adjacent to ▼ mark on product are used for disassembly.*
- *For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions, apply as you think it appropriate.)*

2.1 PACKING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PACKING SECTION Parts List

Mark	No.	Description	Part No.
	1	Operating Instructions	See Contrast table (2)
	2	Remote Control Unit	See Contrast table (2)
	3	Battery Cover	AZA7424
	4	System Cable (3m)	ADF1029
⚠	5	Power Cord	ADG1215
	6	VCR Controller (1.8m)	ADH1024
NSP	7	Dry Cell Battery (LR6/AA)	VEM1021
	8	Screw Hole Cap	See Contrast table (2)
	9	Stand Assy	See Contrast table (2)
NSP	10	Stand	See Contrast table (2)
NSP	11	Stand Cushion	AEB1390
	12	Laminated Sheet Bag	AHG1334
NSP	13	Card	VRY1132
	14	Pad L	AHA2370
	15	Pad R	AHA2371

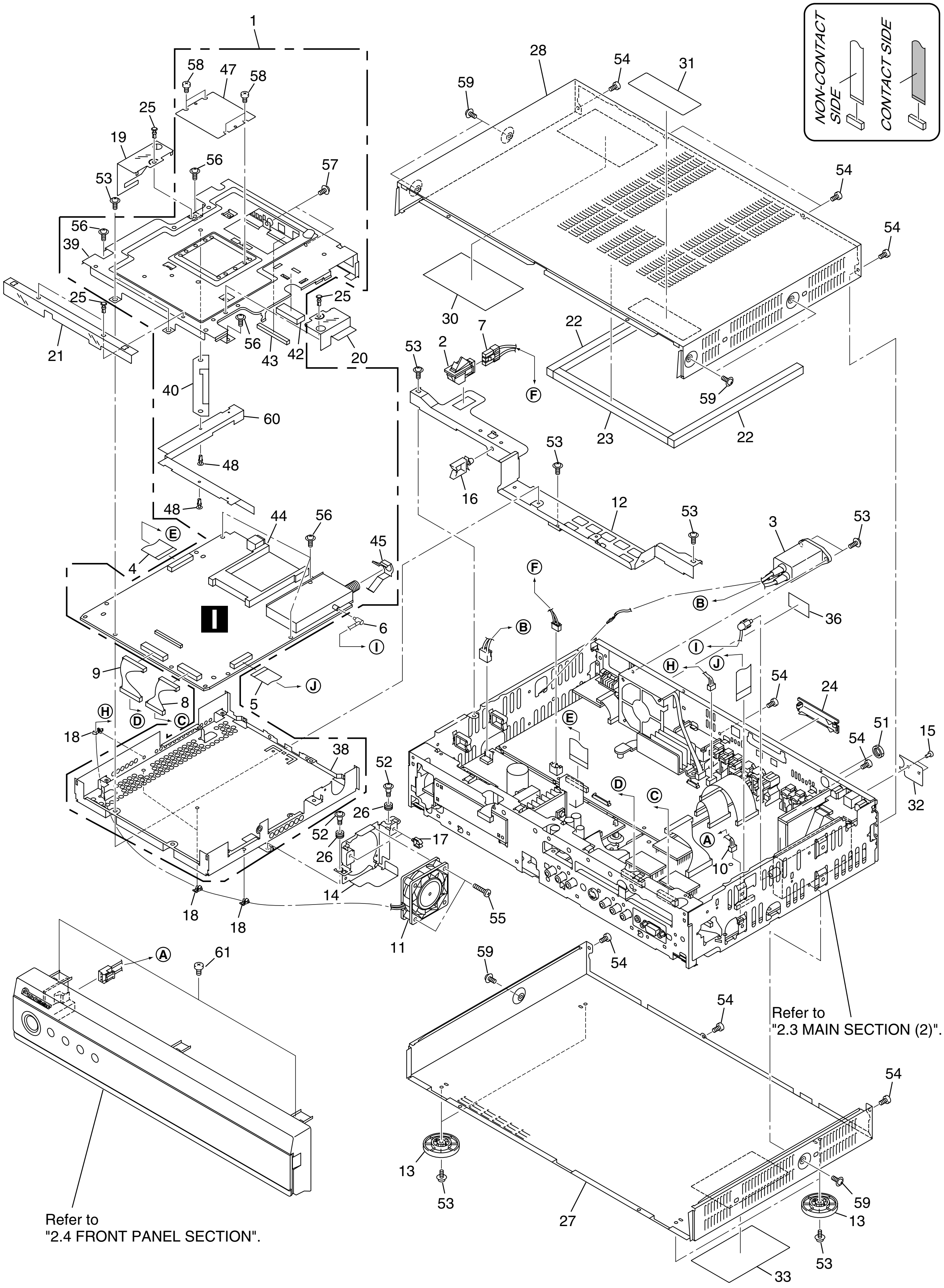
Mark	No.	Description	Part No.
	16	IM Pad	AHB1253
	17	Top Pad	AHB1256
	18	Accessory Box	AHC1053
	19	Carton	See Contrast table (2)
NSP	20	Literature Bag	AHG1303
	21	Vinyl Bag	AHG1340
	22	Vinyl Bag	AHG1337
	23	Laminated Sheet	AHG1350
	24	Air Capsule Bag	AHG1351
	25	Screw	PMB40P120FTB
	26	Manual Sheet	See Contrast table (2)
	27	DCR User Card	ARY1157

(2) CONTRAST TABLE

PDP-R05U/KUC and PRO-R05U/KUC are constructed the same except for the following:

Mark	No.	Description	PDP-R05U/KUC	PRO-R05U/KUC
	1	Operating Instructions (English/French/Spanish)	ARE1379	Not used
	1	Operating Instructions (English)	Not used	ARB1561
	2	Remote Control Unit	AXD1489	AXD1490
	8	Screw Hole Cap	AMR3363	Not used
	8	Screw Hole Cap UE	Not used	AMR3386
	9	Stand Assy	AXG1013	Not used
	9	Stand Assy UE	Not used	AXG1009
NSP	10	Stand	AMR3352	Not used
NSP	10	Stand UE	Not used	AMR3382
	19	Carton U	AHD3244	Not used
	19	Carton UE	Not used	AHD3245
	26	Manual Sheet	ARM1259	Not used

2.2 EXTERIOR(1)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Refer to "2.3 MAIN SECTION (2)".

Refer to "2.4 FRONT PANEL SECTION".

EXTERIOR(1) SECTION PARTS LIST

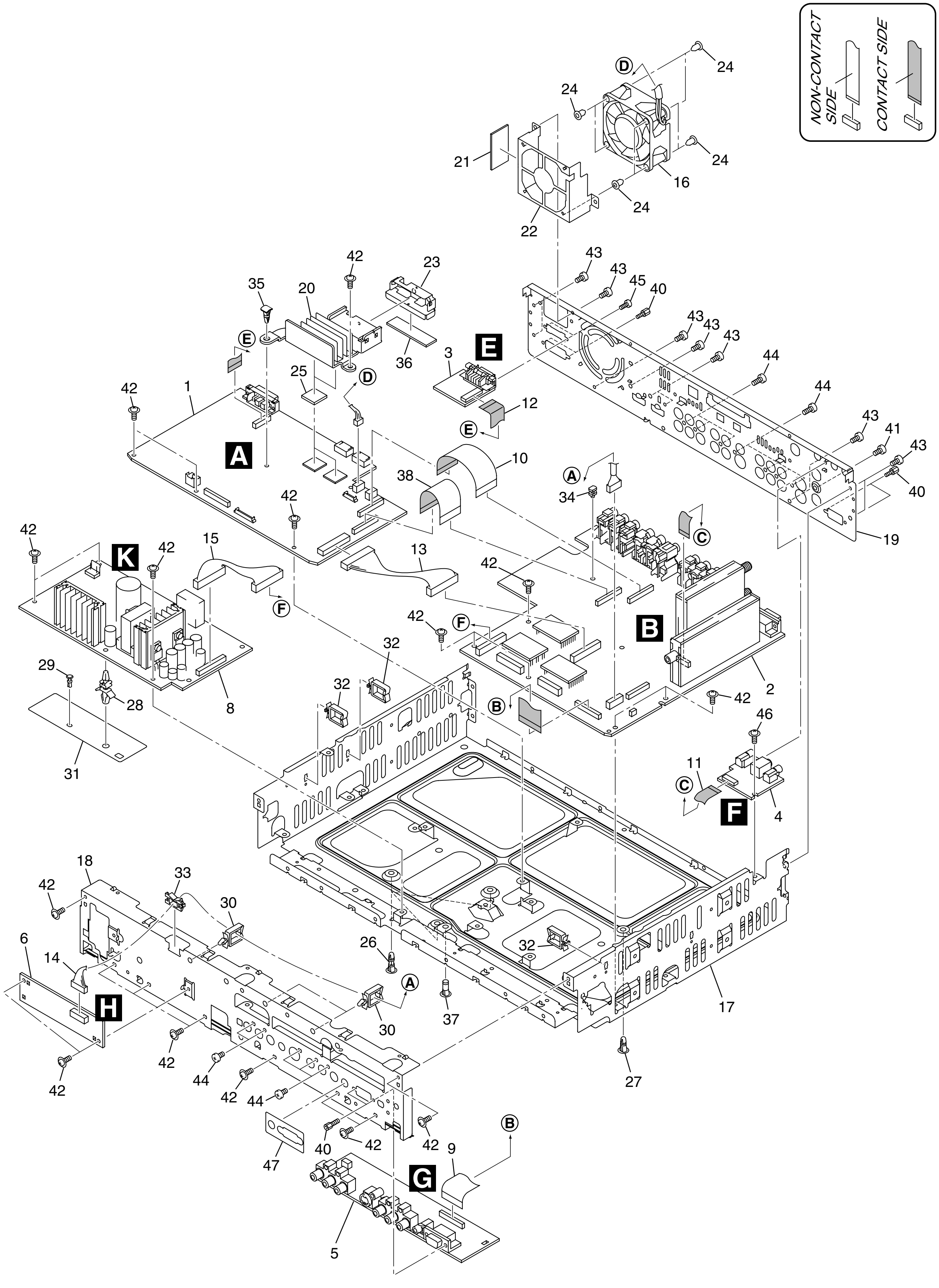
Mark	No.	Description	Part No.
	1	TUNER BOARD Assy (U)	AWE1300
⚠	2	Power Switch (TRAP)(S1)	ASG1089
⚠	3	AC Inlet (CN1)	AKP1272
	4	Flexible Cable (J201)	ADD1266
	5	Flexible Cable (J204)	ADD1267
	6	Plug Cord	ADE1191
	7	3P Housing Wire (J107)	ADX2836
	8	12P Housing Wire (J109)	ADX2918
	9	14P Housing Wire (J110)	ADX2919
	10	3P Housing Wire (J114)	ADX3067
⚠	11	Fan Motor 52 x 15L	AXM1048
	12	Center Stay U	ANG2668
	13	Leg Assy	AXG1012
	14	Fan Holder 50	ANG2681
NSP	15	Clip	AEC-036
	16	Wire Saddle	AEC1745
	17	Mini Clamp	AEC1967
	18	Side Type Mini Clamp	AEC2003
	19	Wind Stopper A	AEC2006
	20	Wind Stopper B	AEC2007
	21	Wind Stopper C	AEC2008
	22	DTV Cushion L	AED1261
	23	DTV Cushion S	AED1262
	24	Rear Cover	AMR3425
	25	Rivet A	BEC1158
NSP	26	Float Rubber RS1	DEB1569
	27	Metal Bonnet Bottom	See Contrast table (2)
	28	Bonnet Top	See Contrast table (2)
	29	Serial Sheet	AAX2609
	30	Solder Warning Label	AAX2644
	31	Caution Label (U)	AAX2999
	32	SR-Cover	AAX3066
NSP	33	Label	See Contrast table (2)
	34	•••••	
	35	•••••	
NSP	36	Serial Label	ARW1100
	37	•••••	
NSP	38	Case Bottom	ANA1778
	39	Case Top	ANG2659
	40	Wind Reflector 2	AEC2011
⚠	41	Gasket C	AEC2014
⚠	42	Gasket A	AEC7528
⚠	43	Gasket B	AEC7529
⚠	44	PCMCIA Ejector	ANG2673
⚠	45	Ground Plate B	ANG2699
	46	•••••	
	47	Top Cover	ANG2706
	48	Rivet A	BEC1158
	49	•••••	
	50	•••••	
	51	Washer	BBN1005
	52	Screw	ABA1317
	53	Screw	ABZ30P080FTC
	54	Screw	BBZ30P060FTB
	55	Screw	BBZ30P200FTC
	56	Screw	ABZ30P060FTC
	57	Screw	BBZ30P080FTC
	58	Screw	PMZ20P080FTC
	59	Screw	See Contrast table (2)
	60	Wind Reflector	AEC7521
	61	Screw	ABZ30P060FTB

(2) CONTRAST TABLE

PDP-R05U/KUC and PRO-R05U/KUC are constructed the same except for the following:

Mark	No.	Description	PDP-R05U/KUC	PRO-R05U/KUC
	27	Metal Bonnet Bottom	ANE1632	Not used
	27	Metal Bonnet Bottom (UE)	Not used	ANE1634
	28	Bonnet Top (U)	ANE1636	Not used
	28	Bonnet Top (UE)	Not used	ANE1633
NSP	33	Label U	AAX3131	Not used
NSP	33	Label UE	Not used	AAX3132
	59	Screw	ABZ30P080FTC	ABZ30P060FTB

2.3 EXTERIOR(2)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EXTERIOR(2) SECTION PARTS LIST

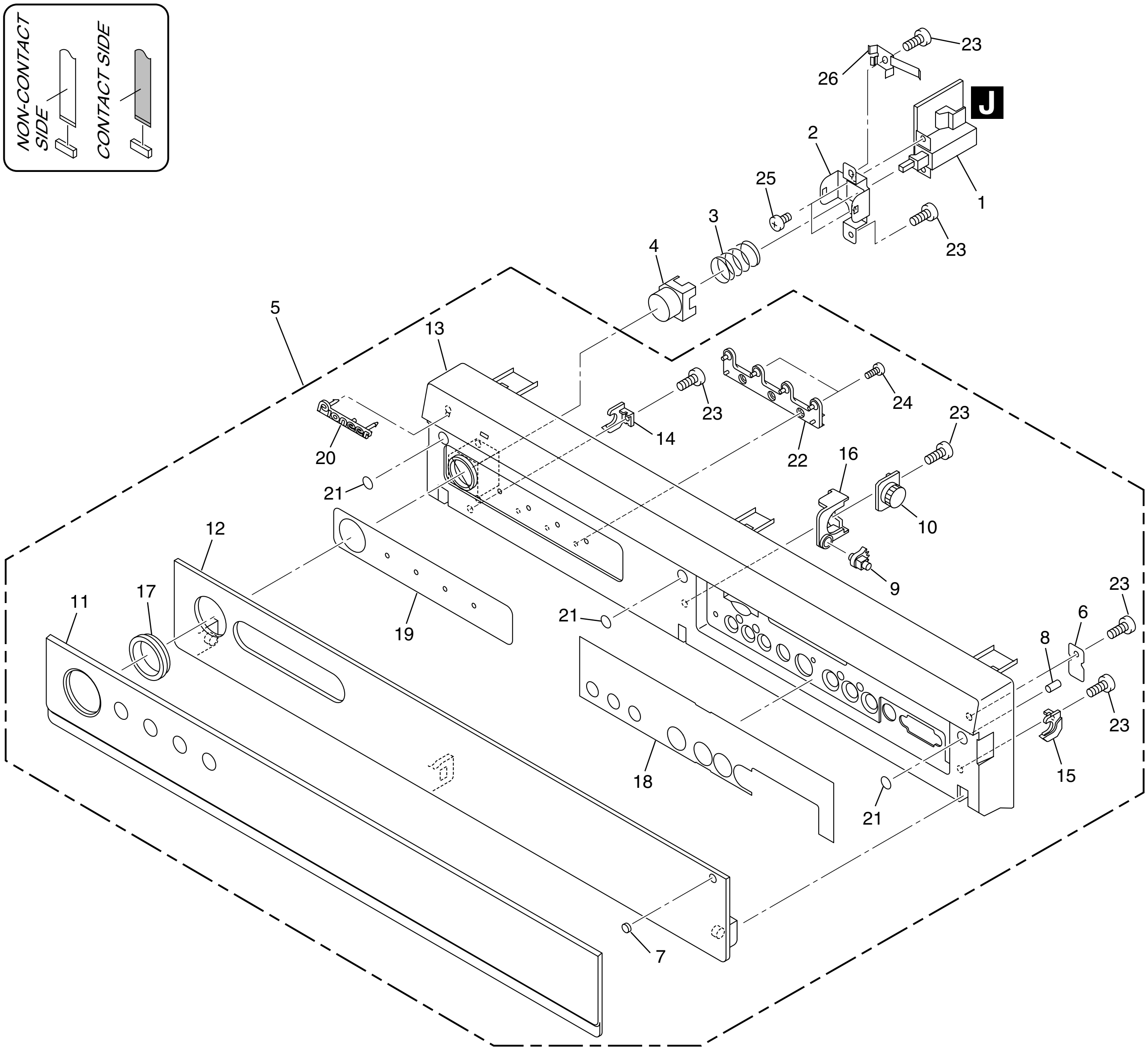
Mark	No.	Description	Part No.
	1	MR MAIN BOARD Assy	AWZ6926
	2	AV BOARD Assy	See Contrast table (2)
	3	MDR Assy	AWZ6922
	4	SR Assy	AWZ6923
	5	FRONT Assy	See Contrast table (2)
	6	LED Assy	AWZ6925
	7	• • • • •	
⚠	8	POWER SUPPLY Unit	AXY1091
	9	Flexible Cable (J205)	ADD1209
	10	Flexible Cable (J203)	ADD1210
	11	Flexible Cable (J206)	ADD1213
	12	Flexible Cable (J207)	ADD1214
	13	15P Housing Wire (J105)	ADX2833
	14	7P Housing Wire (J113)	ADX2914
	15	16P Housing Wire (J112)	ADX2917
⚠	16	Fan Motor 60 x 25L	AXM1047
	17	Base Chassis	See Contrast table (2)
	18	Front Chassis	See Contrast table (2)
	19	Terminal Panel	See Contrast table (2)
	20	Heatsink HDMI	ANH1618
	21	DVI Cushion	AEB1396
	22	Fan Holder	ANG2568
	23	HDMI Shield	ANG2646
	24	Insulation Rubber	AEB1377
	25	Silicone Sheet HDMI	AEB1379
	26	PCB Holder	AEC1097
	27	Spacer	AEC1256
	28	Locking Card Spacer	AEC1429
	29	Nyron Rivet	AEC1671
	30	Wire Saddle	AEC1745
	31	Barrier A	AEC1936
	32	Re-use Wire Saddle	AEC1945
	33	Edge Saddle	AEC1946
	34	Mini Card Spacer	AEC1959
	35	Circuit Board Spacer	AEC1964
	36	Gasket F	ANK1722
	37	Card Spacer A	BEC1120
	38	Flexible Cable (J202)	ADD1209
	39	• • • • •	
	40	Hexagon Head Screw	BBA1051
	41	Screw	ABZ30P060FTB
	42	Screw	ABZ30P080FTC
	43	Screw	BBZ30P060FTB
	44	Screw	BPZ30P100FTB
	45	Screw	PMZ26P060FTB
	46	Screw	BMZ30P060FTC
	47	Front Chassis Sheet	AEC2010

(2) CONTRAST TABLE

PDP-R05U/KUC and PRO-R05U/KUC are constructed the same except for the following:

Mark	No.	Description	PDP-R05U/KUC	PRO-R05U/KUC
	2	AV BOARD Assy	AWZ6978	AWZ6979
	5	FRONT Assy	AWZ6924	AWZ6928
	17	Base Chassis U	ANA1812	Not used
	17	Base Chassis UE	Not used	ANA1817
	18	Front Chassis	ANB1866	Not used
	18	Front Chassis UE	Not used	ANB1868
	19	Terminal Panel U	ANC2361	Not used
	19	Terminal Panel UE	Not used	ANC2367

2.4 FRONT PANEL SECTION


NON-CONTACT SIDE
CONTACT SIDE
J
23
26
2
25
1
3
23
4
5
13
23
24
23
14
20
22
16
21
10
12
9
21
23
17
6
11
19
8
23
18
15
21
7

FRONT PANEL SECTION Parts List

Mark	No.	Description	Part No.
	1	SW Assy	AWZ6977
	2	SW Holder	ANG2670
	3	SW Spring	ABH1109
	4	Power Button	See Contrast table (2)
	5	Front Panel Assy	See Contrast table (2)
	6	Magnet Holder	ANG2671
	7	Magnet Catcher	ANG2675
	8	Magnet	AMF1004
	9	Gear	AMR3418
	10	Damper	AXA1018
	11	Panel	See Contrast table (2)
	12	Door	AAN1473
	13	Front Panel	See Contrast table (2)
	14	Door Holder L	AMR3414
	15	Door Holder R	AMR3415
	16	Damper Holder	AMR3416
	17	Escutcheon Ring	See Contrast table (2)
	18	Sealing Sheet	See Contrast table (2)
	19	Sealing Sheet S	See Contrast table (2)
	20	Pioneer Badge	See Contrast table (2)
	21	Door Cushion	See Contrast table (2)
	22	LED Lens	AMR3417
	23	Screw	BPZ30P100FTB
	24	Screw	JPZ20P035FNI
	25	Screw	BMZ30P060FTC
	26	Groundig Spring KU	ANG2717

(2) CONTRAST TABLE

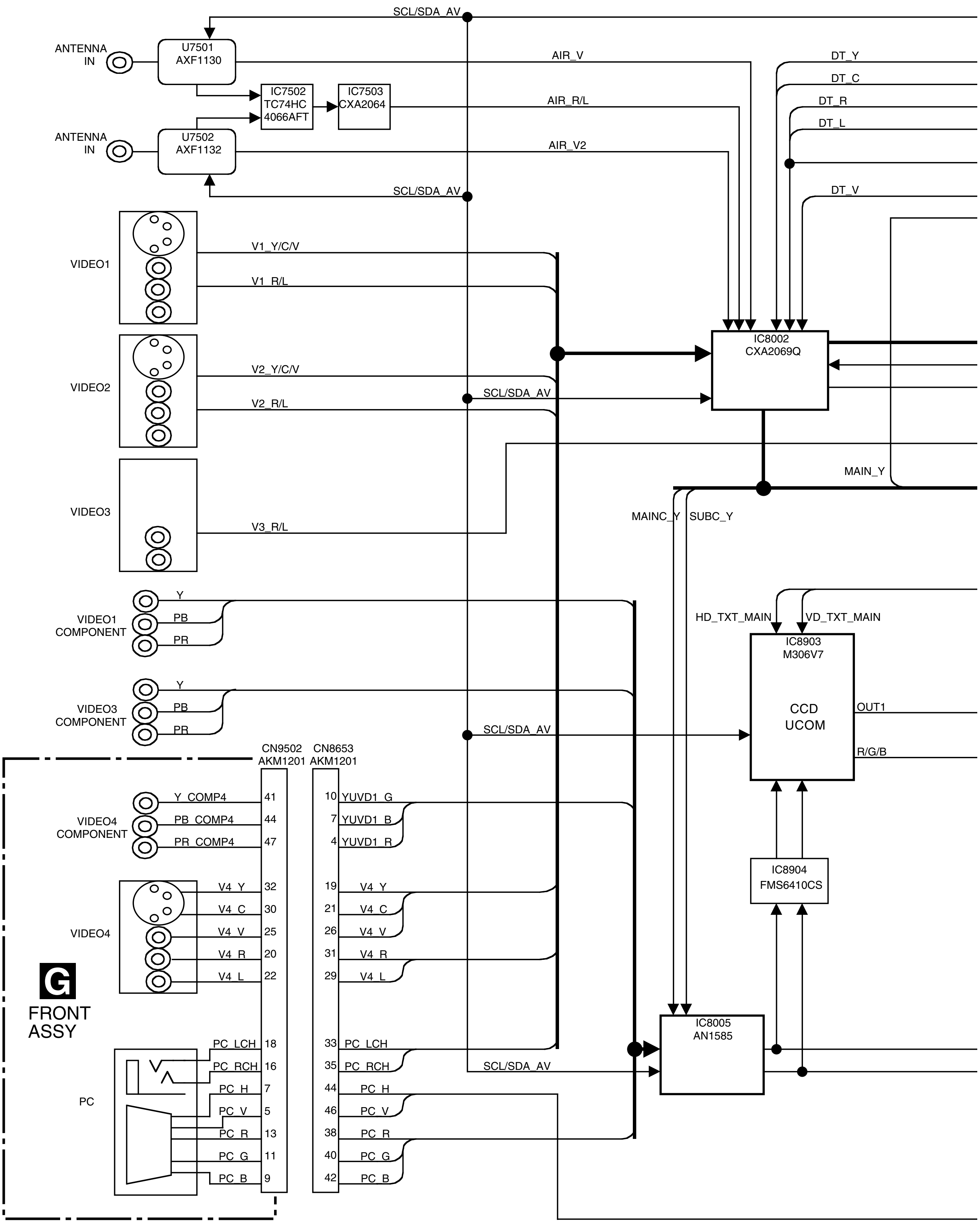
PDP-R05U/KUC and PRO-R05U/KUC are constructed the same except for the following:

Mark	No.	Description	PDP-R05U/KUC	PRO-R05U/KUC
	4	Power Button	AAD4128	Not used
	4	Power Button (UE)	Not used	AAD4129
	5	Front Panel Assy U	AXG1018	Not used
	5	Front Panel Assy UE	Not used	AXG1019
	11	Panel (U)	AAK2823	Not used
	11	Panel (UE)	Not used	AAK2824
	13	Front Panel (U)	AMB2826	Not used
	13	Front Panel (UE)	Not used	AMB2827
	17	Escutcheon Ring	AAD4130	Not used
	17	Escutcheon Ring (UE)	Not used	AAD4132
	18	Sealing Sheet (U)	AAL2545	Not used
	18	Sealing Sheet (UE)	Not used	ALL2546
	19	Sealing Sheet S (U)	AAL2552	Not used
	19	Sealing Sheet S (UE)	Not used	AAL2553
	20	Pioneer Badge	VAM1124	Not used
	20	Pioneer Badge B	Not used	PAN1376
	21	Door Cushion	AEB1391	AEB1394

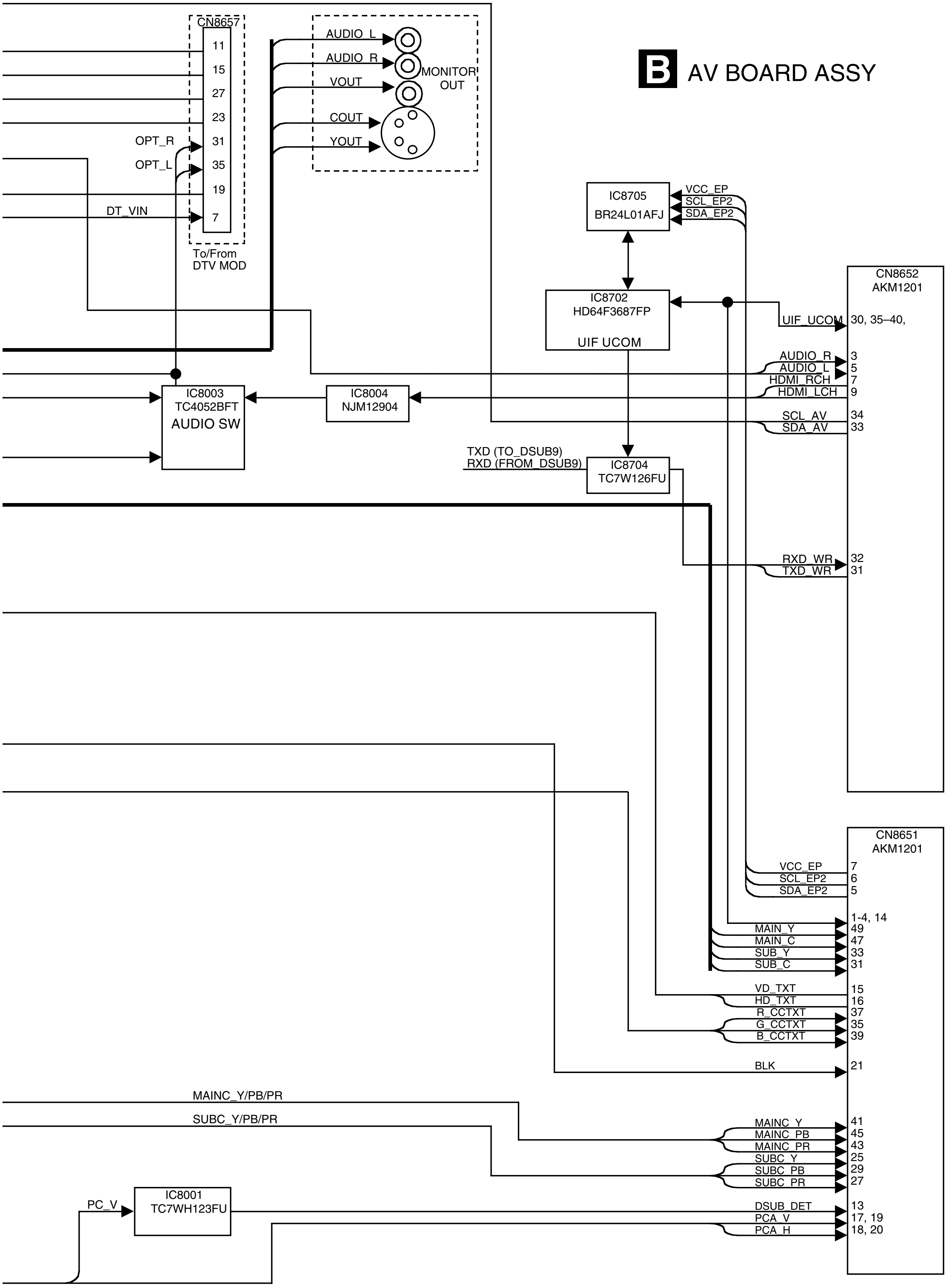
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

3.1 BLOCK DIAGRAM

3.1.1 AV BOARD ASSY

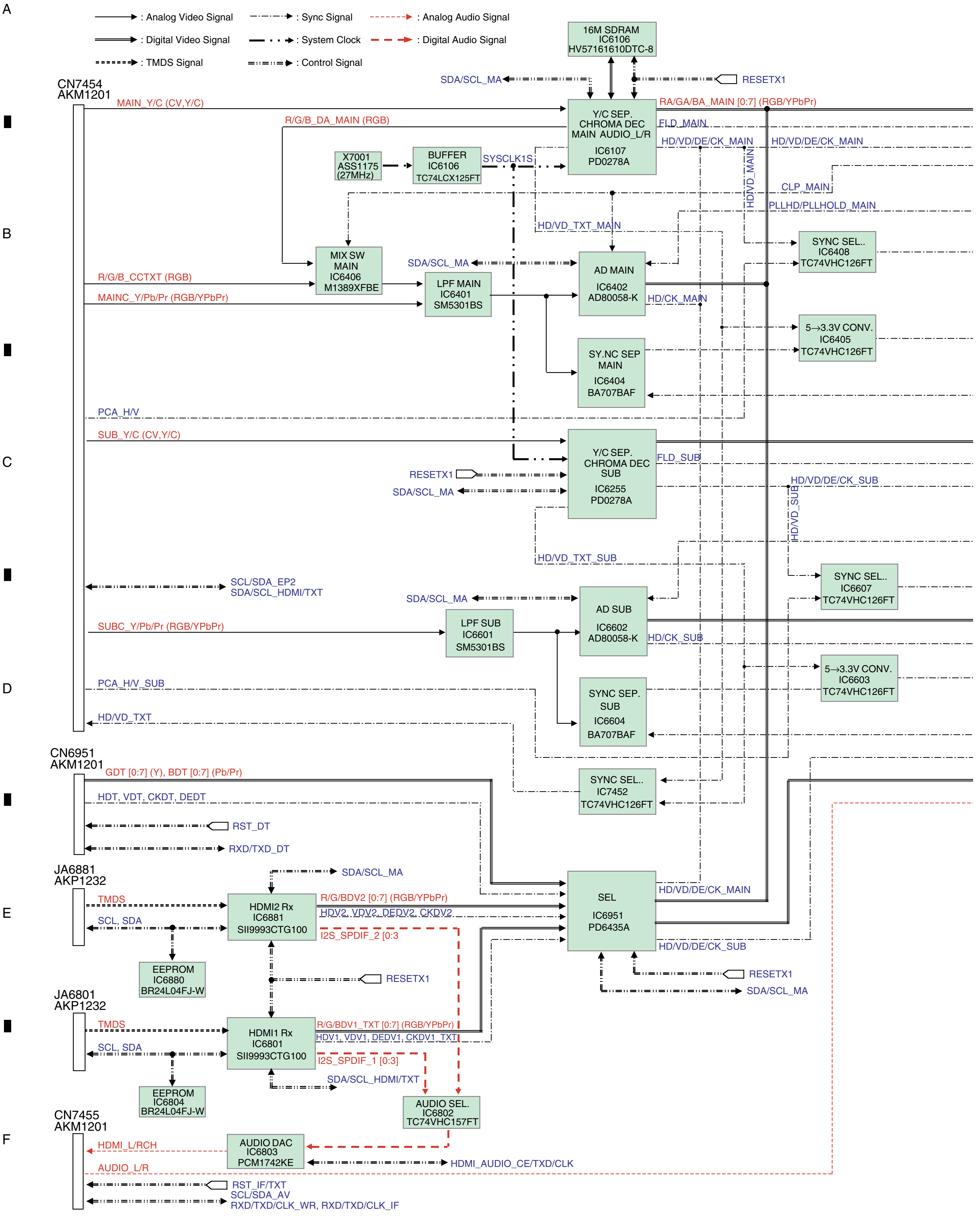

SCL/SDA_AV
ANTENNA IN
U7501
AXF1130
AIR_V
DT_Y
DT_C
IC7502
TC74HC
4066AFT
IC7503
CXA2064
AIR_R/L
DT_R
DT_L
ANTENNA IN
U7502
AXF1132
AIR_V2
SCL/SDA_AV
DT_V
VIDEO1
V1_Y/C/V
V1_R/L
IC8002
CXA2069Q
VIDEO2
V2_Y/C/V
SCL/SDA_AV
V2_R/L
VIDEO3
MAIN_Y
MAINC_Y
SUBC_Y
V3_R/L
Y
PB
PR
VIDEO1 COMPONENT
HD_TXT_MAIN
VD_TXT_MAIN
IC8903
M306V7
CCD UCOM
OUT1
Y
PB
PR
VIDEO3 COMPONENT
SCL/SDA_AV
R/G/B
CN9502
AKM1201
CN8653
AKM1201
VIDEO4 COMPONENT
Y_COMP4 41
PB_COMP4 44
PR_COMP4 47
10 YUVD1_G
7 YUVD1_B
4 YUVD1_R
VIDEO4
V4_Y 32
V4_C 30
V4_V 25
V4_R 20
V4_L 22
19 V4_Y
21 V4_C
26 V4_V
31 V4_R
29 V4_L
IC8904
FMS6410CS
G
FRONT ASSY
IC8005
AN1585
PC
PC_LCH 18
PC_RCH 16
PC_H 7
PC_V 5
PC_R 13
PC_G 11
PC_B 9
33 PC_LCH
35 PC_RCH
44 PC_H
46 PC_V
38 PC_R
40 PC_G
42 PC_B
SCL/SDA_AV

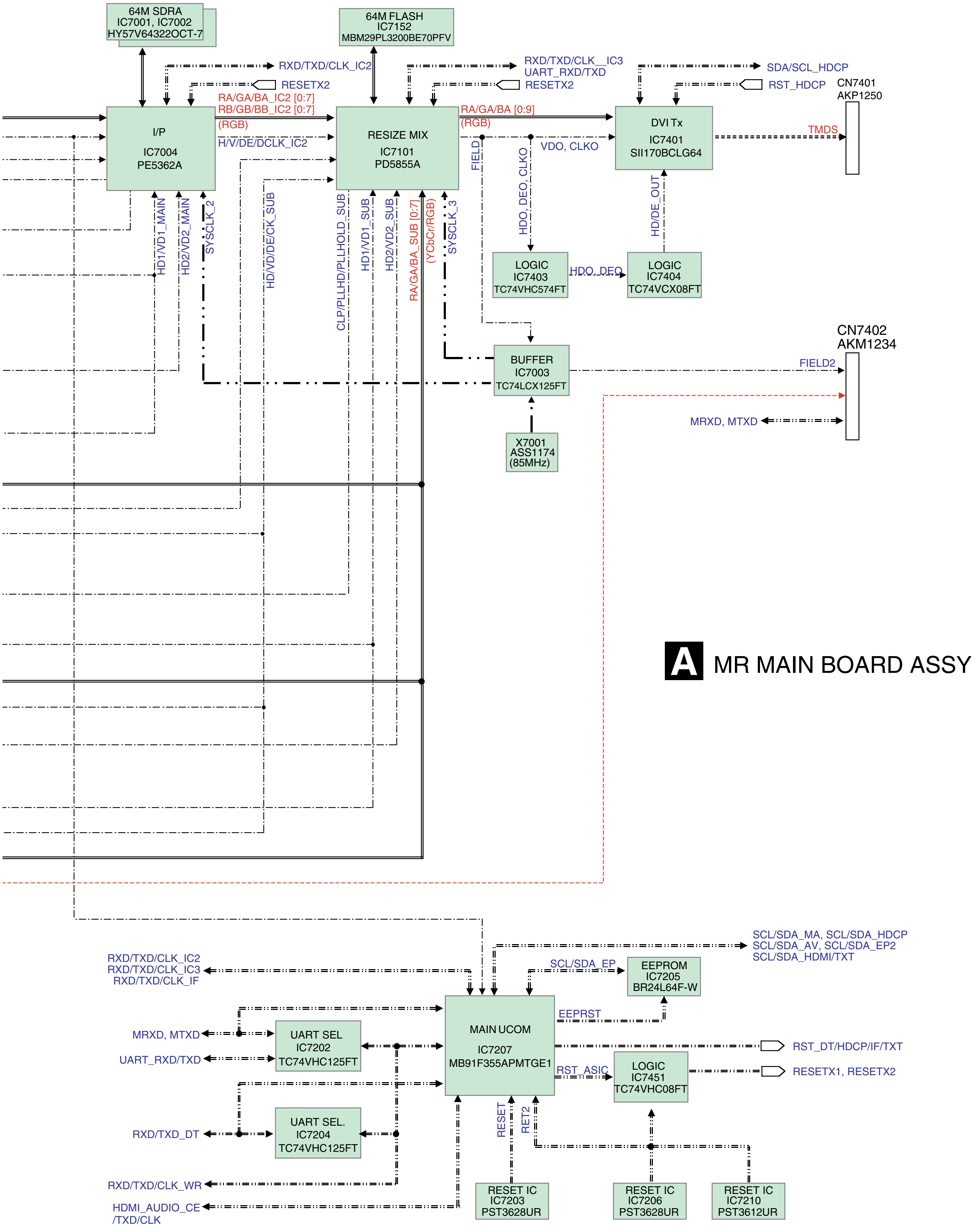
B AV BOARD ASSY



CN8657
11
15
27
23
OPT_R
31
OPT_L
35
19
DT_VIN
7
To/From
DTV MOD
AUDIO_L
AUDIO_R
VOUT
MONITOR
OUT
COUT
YOUT
IC8705
BR24L01AFJ
VCC_EP
SCL_EP2
SDA_EP2
IC8702
HD64F3687FP
UIF UCOM
CN8652
AKM1201
UIF_UCOM
30, 35–40,
AUDIO_R 3
AUDIO_L 5
HDMI_RCH 7
HDMI_LCH 9
SCL_AV 34
SDA_AV 33
IC8003
TC4052BFT
AUDIO SW
IC8004
NJM12904
TXD (TO_DSUB9)
RXD (FROM_DSUB9)
IC8704
TC7W126FU
RXD_WR 32
TXD_WR 31
CN8651
AKM1201
VCC_EP 7
SCL_EP2 6
SDA_EP2 5
1-4, 14
MAIN_Y 49
MAIN_C 47
SUB_Y 33
SUB_C 31
VD_TXT 15
HD_TXT 16
R_CCTXT 37
G_CCTXT 35
B_CCTXT 39
BLK 21
MAINC_Y/PB/PR
SUBC_Y/PB/PR
MAINC_Y 41
MAINC_PB 45
MAINC_PR 43
SUBC_Y 25
SUBC_PB 29
SUBC_PR 27
PC_V
IC8001
TC7WH123FU
DSUB_DET 13
PCA_V 17, 19
PCA_H 18, 20

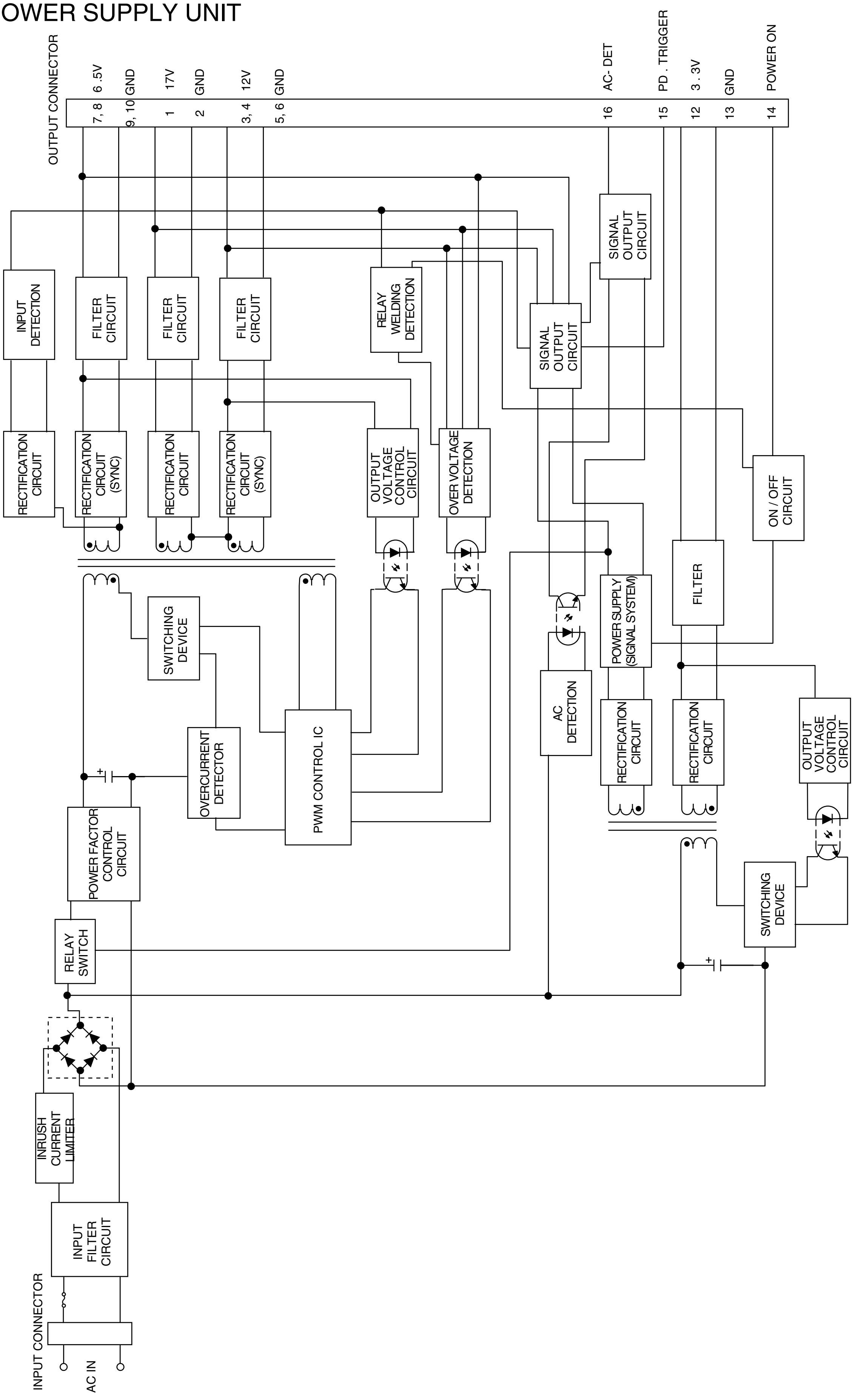
3.1.2 MR MAIN BOARD ASSY


A
: Analog Video Signal
: Sync Signal
: Analog Audio Signal
: Digital Video Signal
: System Clock
: Digital Audio Signal
: TMDS Signal
: Control Signal
16M SDRAM
IC6106
HV57161610DTC-8
SDA/SCL_MA
RESETX1
CN7454
AKM1201
MAIN_Y/C (CV,Y/C)
RA/GA/BA_MAIN [0:7] (RGB/YPbPr)
R/G/B_DA_MAIN (RGB)
Y/C SEP.
CHROMA DEC
MAIN AUDIO_L/R
IC6107
PD0278A
FLD_MAIN
HD/VD/DE/CK_MAIN
HD/VD/DE/CK_MAIN
X7001
ASS1175
(27MHz)
BUFFER
IC6106
TC74LCX125FT
SYSCLK1S
HD/VD_MAIN
CLP_MAIN
PLLHD/PLLHOLD_MAIN
B
HD/VD_TXT_MAIN
MIX SW
MAIN
IC6406
M1389XFBE
SDA/SCL_MA
AD MAIN
IC6402
AD80058-K
SYNC SEL..
IC6408
TC74VHC126FT
R/G/B_CCTXT (RGB)
LPF MAIN
IC6401
SM5301BS
MAINC_Y/Pb/Pr (RGB/YPbPr)
HD/CK_MAIN
5→3.3V CONV.
IC6405
TC74VHC126FT
SY.NC SEP
MAIN
IC6404
BA707BAF
PCA_H/V
SUB_Y/C (CV,Y/C)
C
Y/C SEP.
CHROMA DEC
SUB
IC6255
PD0278A
FLD_SUB
RESETX1
SDA/SCL_MA
HD/VD/DE/CK_SUB
HD/VD_SUB
HD/VD_TXT_SUB
SCL/SDA_EP2
SDA/SCL_HDMI/TXT
SYNC SEL..
IC6607
TC74VHC126FT
SDA/SCL_MA
AD SUB
IC6602
AD80058-K
SUBC_Y/Pb/Pr (RGB/YPbPr)
LPF SUB
IC6601
SM5301BS
HD/CK_SUB
5→3.3V CONV.
IC6603
TC74VHC126FT
D
PCA_H/V_SUB
SYNC SEP.
SUB
IC6604
BA707BAF
HD/VD_TXT
CN6951
AKM1201
GDT [0:7] (Y), BDT [0:7] (Pb/Pr)
SYNC SEL..
IC7452
TC74VHC126FT
HDT, VDT, CKDT, DEDT
RST_DT
RXD/TXD_DT
JA6881
AKP1232
SDA/SCL_MA
SEL
IC6951
PD6435A
HD/VD/DE/CK_MAIN
E
TMDS
HDMI2 Rx
IC6881
SII9993CTG100
R/G/BDV2 [0:7] (RGB/YPbPr)
HDV2, VDV2, DEDV2, CKDV2
SCL, SDA
I2S_SPDIF_2 [0:3
HD/VD/DE/CK_SUB
EEPROM
IC6880
BR24L04FJ-W
RESETX1
RESETX1
SDA/SCL_MA
JA6801
AKP1232
TMDS
HDMI1 Rx
IC6801
SII9993CTG100
R/G/BDV1_TXT [0:7] (RGB/YPbPr)
HDV1, VDV1, DEDV1, CKDV1_TXT
SCL, SDA
I2S_SPDIF_1 [0:3]
SDA/SCL_HDMI/TXT
EEPROM
IC6804
BR24L04FJ-W
AUDIO SEL.
IC6802
TC74VHC157FT
CN7455
AKM1201
F
HDMI_L/RCH
AUDIO DAC
IC6803
PCM1742KE
AUDIO_L/R
HDMI_AUDIO_CE/TXD/CLK
RST_IF/TXT
SCL/SDA_AV
RXD/TXD/CLK_WR, RXD/TXD/CLK_IF

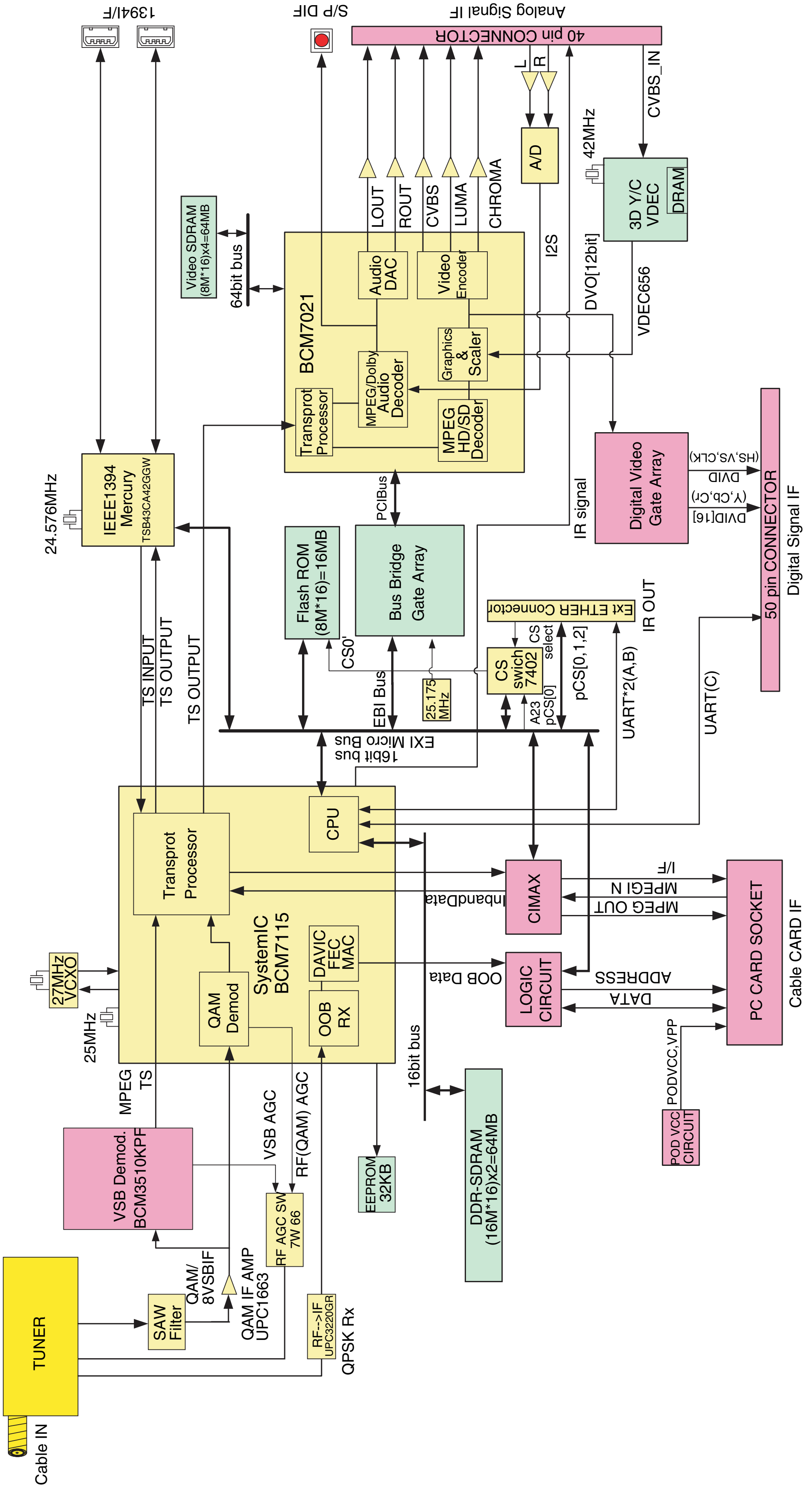

64M SDRA
IC7001, IC7002
HY57V64322OCT-7
64M FLASH
IC7152
MBM29PL3200BE70PFV
RXD/TXD/CLK_IC2
RESETX2
RXD/TXD/CLK__IC3
UART_RXD/TXD
RESETX2
SDA/SCL_HDCP
RST_HDCP
CN7401
AKP1250
RA/GA/BA_IC2 [0:7]
RB/GB/BB_IC2 [0:7]
(RGB)
H/V/DE/DCLK_IC2
I/P
IC7004
PE5362A
RESIZE MIX
IC7101
PD5855A
RA/GA/BA [0:9]
(RGB)
VDO, CLKO
FIELD
DVI Tx
IC7401
SII170BCLG64
TMDS
HD1/VD1_MAIN
HD2/VD2_MAIN
SYSCLK_2
HD/VD/DE/CK_SUB
CLP/PLLHD/PLLHOLD_SUB
HD1/VD1_SUB
HD2/VD2_SUB
RA/GA/BA_SUB [0:7]
(YCbCr/RGB)
SYSCLK_3
HDO, DEO, CLKO
HD/DE_OUT
LOGIC
IC7403
TC74VHC574FT
HDO, DEO
LOGIC
IC7404
TC74VCX08FT
CN7402
AKM1234
BUFFER
IC7003
TC74LCX125FT
FIELD2
MRXD, MTXD
X7001
ASS1174
(85MHz)
A
MR MAIN BOARD ASSY
SCL/SDA_MA, SCL/SDA_HDCP
SCL/SDA_AV, SCL/SDA_EP2
SCL/SDA_HDMI/TXT
RXD/TXD/CLK_IC2
RXD/TXD/CLK_IC3
RXD/TXD/CLK_IF
SCL/SDA_EP
EEPROM
IC7205
BR24L64F-W
EEPRST
MRXD, MTXD
UART SEL
IC7202
TC74VHC125FT
UART_RXD/TXD
MAIN UCOM
IC7207
MB91F355APMTGE1
RST_DT/HDCP/IF/TXT
RST_ASIC
LOGIC
IC7451
TC74VHC08FT
RESETX1, RESETX2
RXD/TXD_DT
UART SEL.
IC7204
TC74VHC125FT
RESET
RET2
RXD/TXD/CLK_WR
HDMI_AUDIO_CE
/TXD/CLK
RESET IC
IC7203
PST3628UR
RESET IC
IC7206
PST3628UR
RESET IC
IC7210
PST3612UR

3.1.3 POWER SUPPLY UNIT

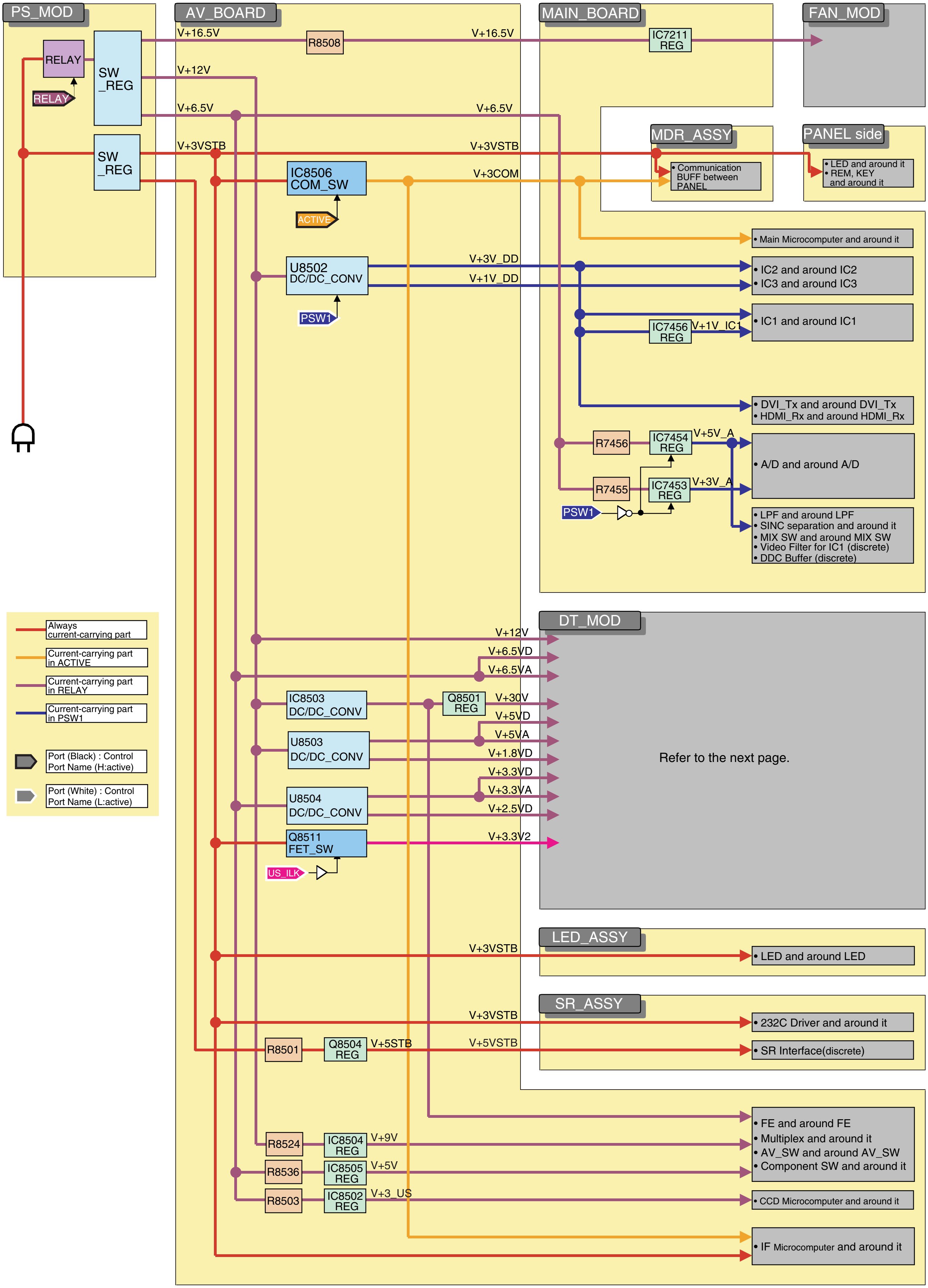
K POWER SUPPLY UNIT

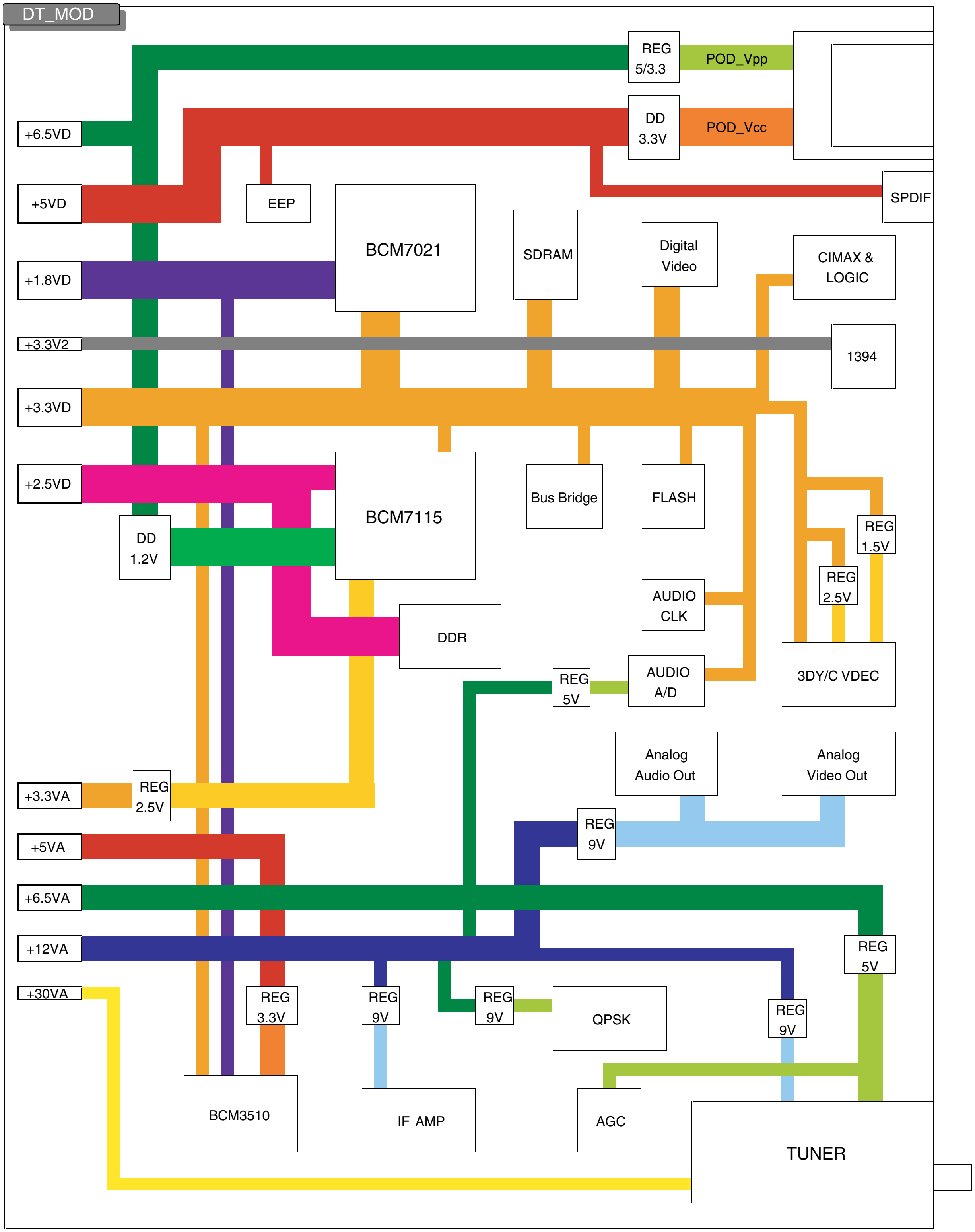

OUTPUT CONNECTOR
7, 8 6 .5V
9, 10 GND
1 17V
2 GND
3, 4 12V
5, 6 GND
16 AC- DET
15 PD . TRIGGER
12 3 . 3V
13 GND
14 POWER ON
INPUT DETECTION
FILTER CIRCUIT
FILTER CIRCUIT
FILTER CIRCUIT
RELAY WELDING DETECTION
SIGNAL OUTPUT CIRCUIT
SIGNAL OUTPUT CIRCUIT
RECTIFICATION CIRCUIT
RECTIFICATION CIRCUIT (SYNC)
RECTIFICATION CIRCUIT
RECTIFICATION CIRCUIT (SYNC)
OUTPUT VOLTAGE CONTROL CIRCUIT
OVER VOLTAGE DETECTION
ON / OFF CIRCUIT
SWITCHING DEVICE
POWER SUPPLY (SIGNAL SYSTEM)
FILTER
AC DETECTION
PWM CONTROL IC
OVERCURRENT DETECTOR
RECTIFICATION CIRCUIT
RECTIFICATION CIRCUIT
OUTPUT VOLTAGE CONTROL CIRCUIT
POWER FACTOR CONTROL CIRCUIT
SWITCHING DEVICE
RELAY SWITCH
INRUSH CURRENT LIMITER
INPUT FILTER CIRCUIT
INPUT CONNECTOR
AC IN

3.1.4 TUNER BOARD ASSY

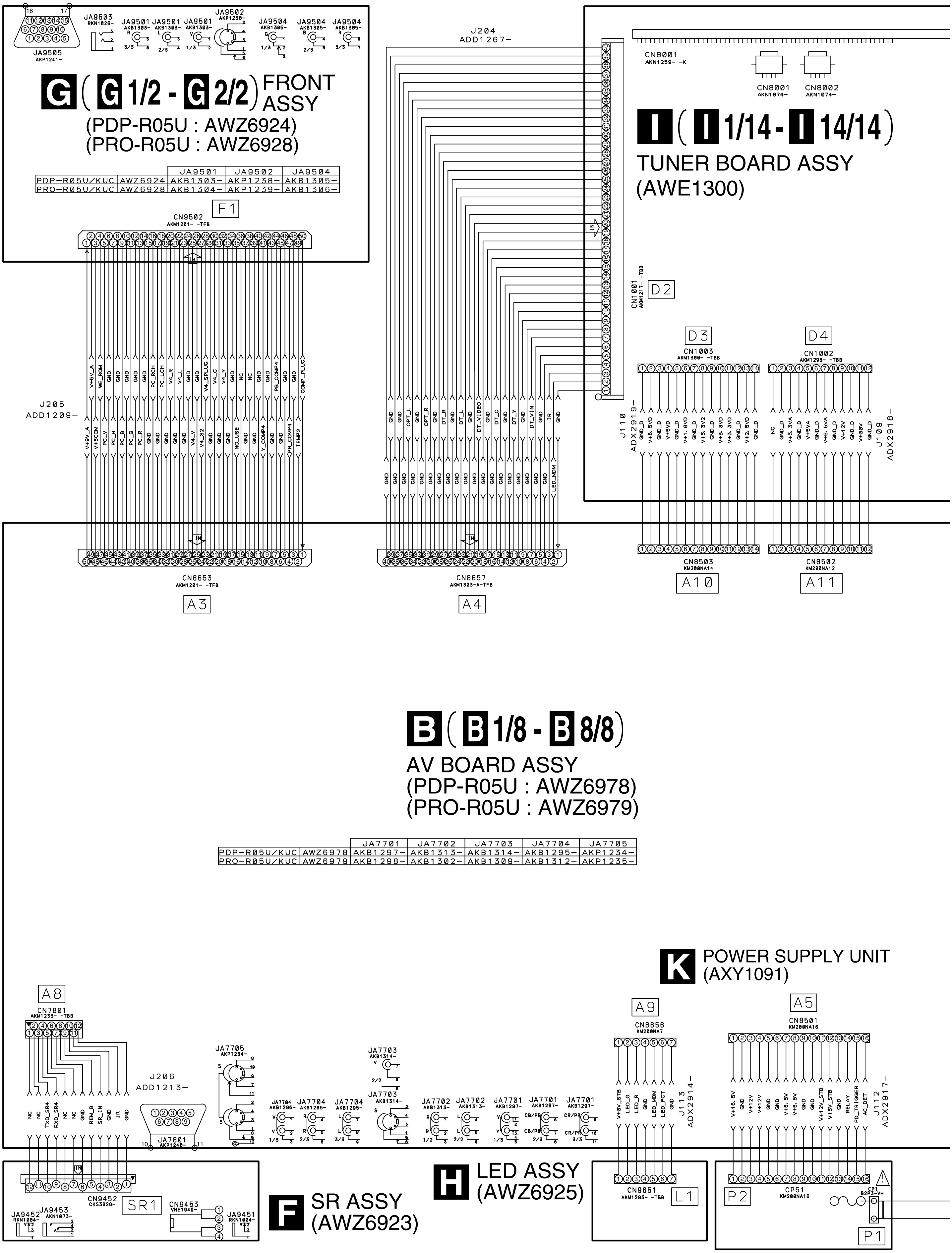

1394I/F
S/P DIF
Analog Signal IF
40 pin CONNECTOR
L
R
CVBS_IN
A/D
42MHz
3D Y/C VDEC
DRAM
Video SDRAM (8M*16)x4=64MB
64bit bus
LOUT
ROUT
CVBS
LUMA
CHROMA
I2S
DVO[12bit]
VDEC656
Audio DAC
Video Encoder
BCM7021
Graphics & Scaler
MPEG/Dolby Audio Decoder
Transprot Processor
MPEG HD/SD Decoder
24.576MHz
IEEE1394 Mercury TSB43CA42GGW
PCIBus
Flash ROM (8M*16)=16MB
Bus Bridge Gate Array
IR signal
Digital Video Gate Array
DVID[16] (Y,Cb,Cr)
DVID (HS,VS,CLK)
50 pin CONNECTOR
Digital Signal IF
Ext ETHER Connector
IR OUT
CS select
CS swich 7402
CS0'
25.175 MHz
EBI Bus
A23
pCS[0]
pCS[0,1,2]
UART*2(A,B)
UART(C)
TS INPUT
TS OUTPUT
TS OUTPUT
EXI Micro Bus
16bit bus
CPU
Transprot Processor
CIMAX
InbandData
I/F
MPEGI N
MPEG OUT
PC CARD SOCKET
Cable CARD IF
SystemIC BCM7115
DAVIC FEC MAC
OOB Data
LOGIC CIRCUIT
ADDRESS
DATA
27MHz VCXO
25MHz
QAM Demod
OOB RX
16bit bus
PODVCC,VPP
POD VCC CIRCUIT
MPEG TS
VSB AGC
RF(QAM) AGC
DDR-SDRAM (16M*16)x2=64MB
EEPROM 32KB
VSB Demod. BCM3510KPF
RF AGC SW 7W 66
QAM/ 8VSBIF
QAM IF AMP UPC1663
SAW Filter
TUNER
RF-->IF UPC3220GR
QPSK Rx
Cable IN

3.1.5 POWER SUPPLY


PS_MOD
RELAY
RELAY
SW _REG
SW _REG
AV_BOARD
V+16.5V
R8508
V+16.5V
V+12V
V+6.5V
V+6.5V
V+3VSTB
V+3VSTB
IC8506 COM_SW
V+3COM
ACTIVE
U8502 DC/DC_CONV
V+3V_DD
V+1V_DD
PSW1
MAIN_BOARD
IC7211 REG
FAN_MOD
MDR_ASSY
• Communication BUFF between PANEL
PANEL side
• LED and around it
• REM, KEY and around it
• Main Microcomputer and around it
• IC2 and around IC2
• IC3 and around IC3
IC7456 REG
V+1V_IC1
• IC1 and around IC1
• DVI_Tx and around DVI_Tx
• HDMI_Rx and around HDMI_Rx
R7456
IC7454 REG
V+5V_A
• A/D and around A/D
R7455
IC7453 REG
V+3V_A
PSW1
• LPF and around LPF
• SINC separation and around it
• MIX SW and around MIX SW
• Video Filter for IC1 (discrete)
• DDC Buffer (discrete)
Always current-carrying part
Current-carrying part in ACTIVE
Current-carrying part in RELAY
Current-carrying part in PSW1
Port (Black) : Control Port Name (H:active)
Port (White) : Control Port Name (L:active)
DT_MOD
V+12V
V+6.5VD
V+6.5VA
IC8503 DC/DC_CONV
Q8501 REG
V+30V
V+5VD
U8503 DC/DC_CONV
V+5VA
V+1.8VD
V+3.3VD
V+3.3VA
U8504 DC/DC_CONV
V+2.5VD
Q8511 FET_SW
V+3.3V2
US_ILK
Refer to the next page.
LED_ASSY
V+3VSTB
• LED and around LED
SR_ASSY
V+3VSTB
• 232C Driver and around it
R8501
Q8504 REG
V+5STB
V+5VSTB
• SR Interface(discrete)
• FE and around FE
• Multiplex and around it
• AV_SW and around AV_SW
• Component SW and around it
R8524
IC8504 REG
V+9V
R8536
IC8505 REG
V+5V
R8503
IC8502 REG
V+3_US
• CCD Microcomputer and around it
• IF Microcomputer and around it


DT_MOD
+6.5VD
+5VD
+1.8VD
+3.3V2
+3.3VD
+2.5VD
+3.3VA
+5VA
+6.5VA
+12VA
+30VA
REG 5/3.3
POD_Vpp
DD 3.3V
POD_Vcc
SPDIF
EEP
BCM7021
SDRAM
Digital Video
CIMAX & LOGIC
1394
BCM7115
Bus Bridge
FLASH
DD 1.2V
REG 1.5V
REG 2.5V
AUDIO CLK
DDR
REG 5V
AUDIO A/D
3DY/C VDEC
Analog Audio Out
Analog Video Out
REG 2.5V
REG 9V
REG 5V
REG 3.3V
REG 9V
REG 9V
QPSK
REG 9V
BCM3510
IF AMP
AGC
TUNER

3.2 OVERALL WIRING CONNECTION DIAGRAM


JA9505
AKP1241-
JA9503
RKN1026-
JA9501
AKB1303-
JA9502
AKP1238-
JA9504
AKB1305-
G (G 1/2 - G 2/2) FRONT ASSY
(PDP-R05U : AWZ6924)
(PRO-R05U : AWZ6928)
F1
CN9502
AKM1201- -TFB
J205
ADD1209-
V+5V_A
WE_ROM
GND
PC_RCH
PC_LCH
V4_R
V4_L
V4_SPLUG
V4_C
V4_Y
NC
PB_COMP4
COMP_PLUG
V+9V_A
V+3COM
PC_V
PC_H
PC_B
PC_G
PC_R
V4_V
V4_S2
NO_USE
Y_COMP4
PR_COMP4
TEMP2
J204
ADD1267-
OPT_L
OPT_R
DT_R
DT_L
DT_VIDEO
DT_C
DT_Y
DT_VIN
IR
LED_MDM
IN
CN8001
AKN1259- -K
CN8001
AKN1074-
CN8002
AKN1074-
I (I 1/14 - I 14/14)
TUNER BOARD ASSY
(AWE1300)
CN1001
AKM1217- -TBB
D2
D3
CN1003
AKM1300- -TBB
D4
CN1002
AKM1298- -TBB
J110
ADX2919-
GND_D
V+6.5VD
V+5VD
V+1.8VD
V+3.3V2
V+3.3VD
V+2.5VD
J109
ADX2918-
NC
V+3.3VA
V+5VA
V+6.5VA
V+12V
V+30V
CN8653
AKM1201- -TFB
A3
CN8657
AKM1303-A-TFB
A4
CN8503
KM200NA14
A10
CN8502
KM200NA12
A11
B (B 1/8 - B 8/8)
AV BOARD ASSY
(PDP-R05U : AWZ6978)
(PRO-R05U : AWZ6979)
K POWER SUPPLY UNIT
(AXY1091)
A8
CN7801
AKM1233- -TBB
J206
ADD1213-
NC
TXD_SR4
RXD_SR4
REM_B
SR_IN
IR
GND
JA7801
AKP1240-
JA7705
AKP1234-
JA7703
AKB1314-
JA7704
AKB1295-
JA7702
AKB1313-
JA7701
AKB1297-
CB/PB
CR/PR
A9
CN8656
KM200NA7
V+3V_STB
LED_G
LED_R
LED_MDM
LED_FCT
J113
ADX2914-
A5
CN8501
KM200NA16
V+16.5V
V+12V
V+6.5V
V+12V_STB
V+3V_STB
RELAY
PD_TRIGGER
AC_DET
J112
ADX2917-
CN9452
CKS3026-
SR1
CN9453
VNE1949-
JA9452
RKN1004-
JA9453
AKN1073-
JA9451
RKN1004-
F SR ASSY
(AWZ6923)
H LED ASSY
(AWZ6925)
CN9651
AKM1293- -TBB
L1
P2
CP51
KM200NA16
CP1
B2P3-VH
P1

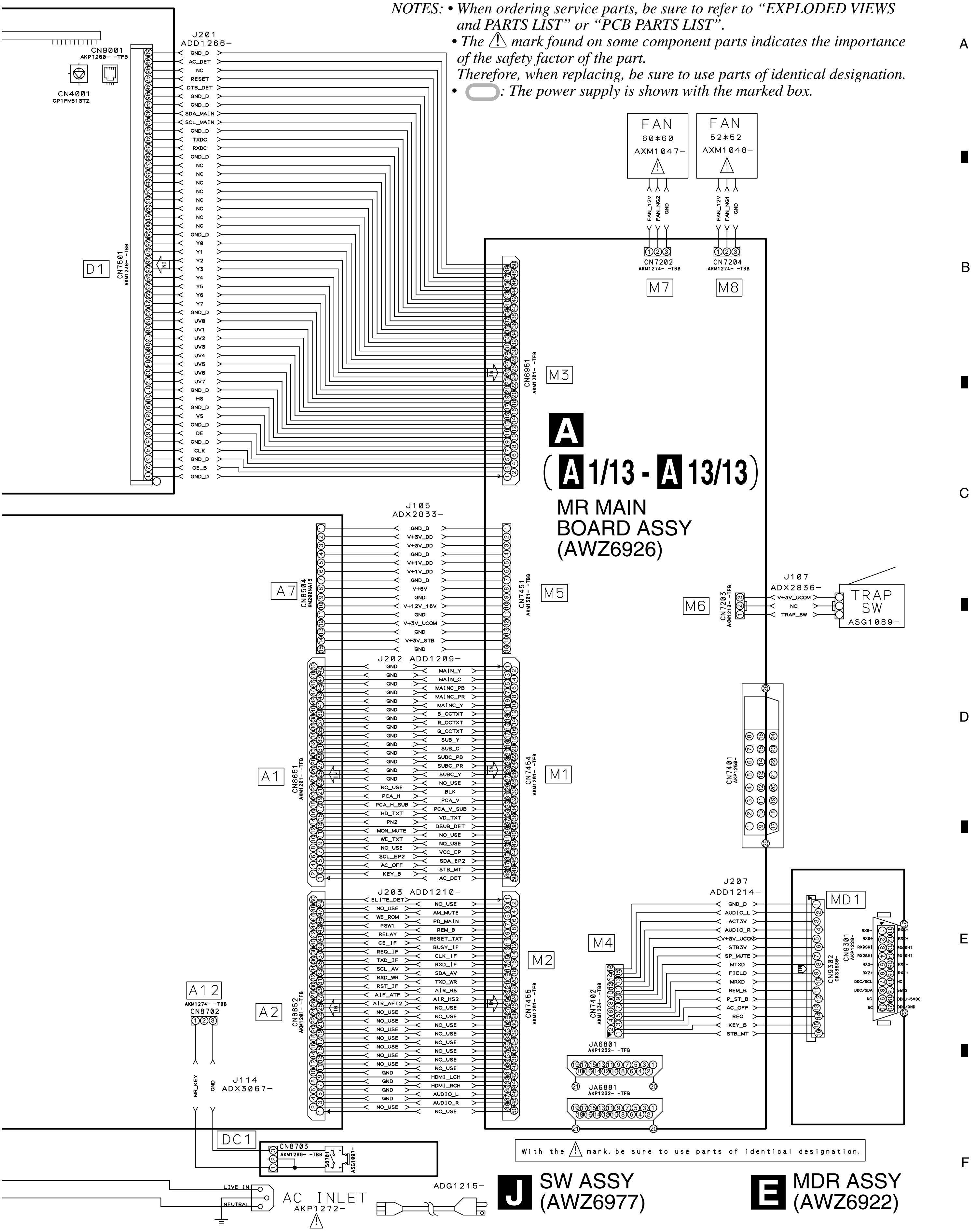
		JA9501	JA9502	JA9504
PDP-R05U/KUC	AWZ6924	AKB1303-	AKP1238-	AKB1305-
PRO-R05U/KUC	AWZ6928	AKB1304-	AKP1239-	AKB1306-

		JA7701	JA7702	JA7703	JA7704	JA7705
PDP-R05U/KUC	AWZ6978	AKB1297-	AKB1313-	AKB1314-	AKB1295-	AKP1234-
PRO-R05U/KUC	AWZ6979	AKB1298-	AKB1302-	AKB1309-	AKB1312-	AKP1235-

NOTES: • *When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".*

• *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*

• *⬭: The power supply is shown with the marked box.*

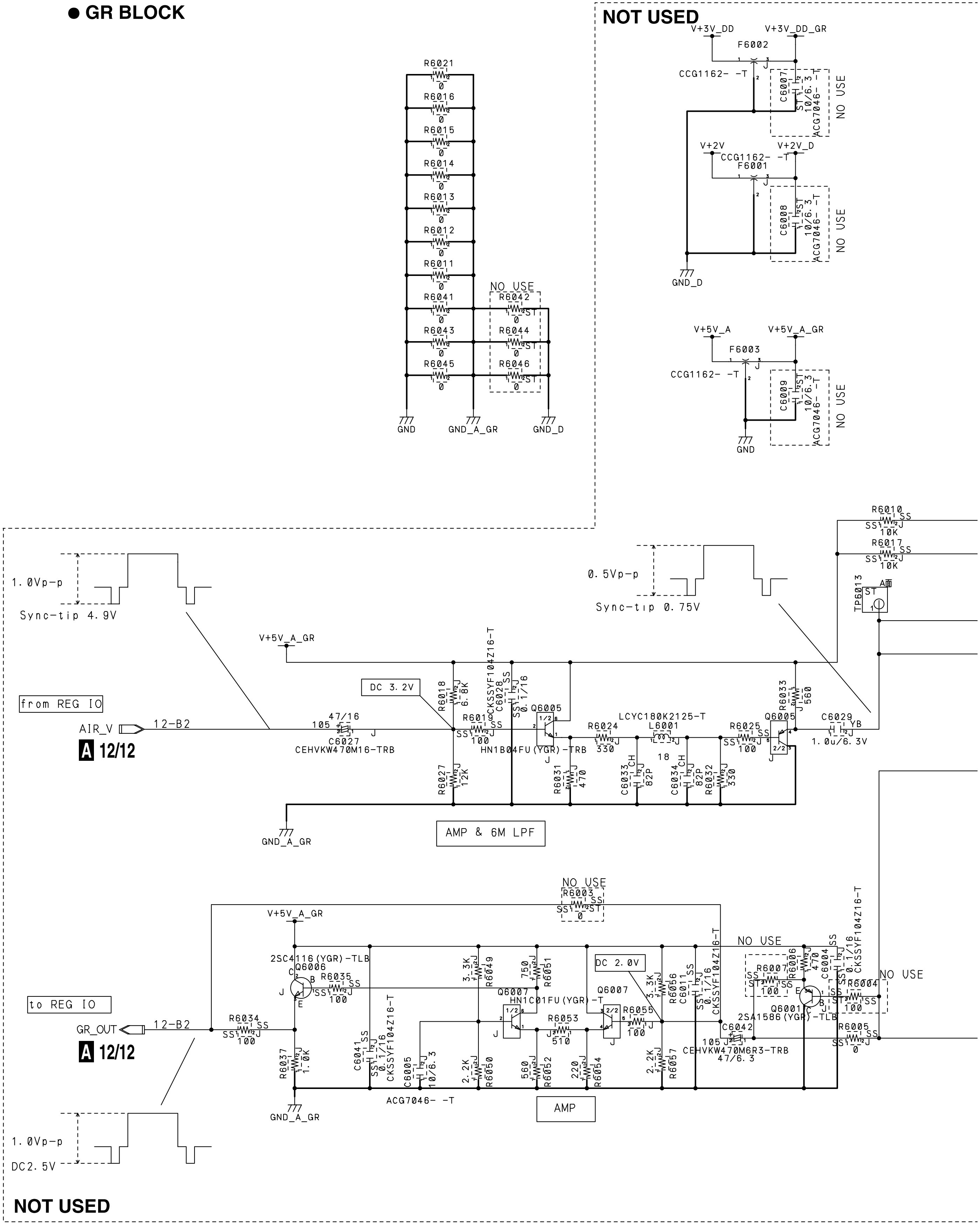

A
B
C
D
E
F
CN9001 AKP1260- -TFB
CN4001 GP1FM513TZ
J201 ADD1266-
GND_D
AC_DET
NC
RESET
DTB_DET
SDA_MAIN
SCL_MAIN
TXDC
RXDC
Y0
Y1
Y2
Y3
Y4
Y5
Y6
Y7
UV0
UV1
UV2
UV3
UV4
UV5
UV6
UV7
HS
VS
DE
CLK
OE_B
D1
CN7501 AKM1236- -TBB
FAN 60*60 AXM1047-
FAN 52*52 AXM1048-
FAN_12V
FAN_NG2
FAN_NG1
GND
CN7202 AKM1274- -TBB
CN7204 AKM1274- -TBB
M7
M8
CN6951 AKM1201- -TFB
M3
A
(A 1/13 - A 13/13)
MR MAIN BOARD ASSY (AWZ6926)
J105 ADX2833-
V+3V_DD
V+1V_DD
V+6V
V+12V_16V
V+3V_UCOM
V+3V_STB
A7
CN8504 KM200NA15
CN7451 AKM1301- -TBB
M5
J107 ADX2836-
NC
TRAP_SW
TRAP SW ASG1089-
M6
CN7203 AKM1213- -TFB
J202 ADD1209-
MAIN_Y
MAIN_C
MAINC_PB
MAINC_PR
MAINC_Y
B_CCTXT
R_CCTXT
G_CCTXT
SUB_Y
SUB_C
SUBC_PB
SUBC_PR
SUBC_Y
NO_USE
BLK
PCA_H
PCA_V
PCA_H_SUB
PCA_V_SUB
HD_TXT
VD_TXT
PN2
DSUB_DET
MON_MUTE
WE_TXT
VCC_EP
SCL_EP2
SDA_EP2
AC_OFF
STB_MT
KEY_B
A1
CN8651 AKM1201- -TFB
CN7454 AKM1201- -TFB
M1
CN7401 AKP1260-
J203 ADD1210-
ELITE_DET
AM_MUTE
WE_ROM
PD_MAIN
PSW1
REM_B
RELAY
RESET_TXT
CE_IF
BUSY_IF
REQ_IF
CLK_IF
TXD_IF
RXD_IF
SCL_AV
SDA_AV
RXD_WR
TXD_WR
RST_IF
AIR_HS
AIF_ATF
AIR_HS2
AIR_AFT2
HDMI_LCH
HDMI_RCH
AUDIO_L
AUDIO_R
A2
CN8652 AKM1201- -TFB
CN7455 AKM1201- -TFB
M2
A12
CN8702 AKM1274- -TBB
MR_KEY
J114 ADX3067-
J207 ADD1214-
ACT3V
STB3V
SP_MUTE
MTXD
FIELD
MRXD
P_ST_B
REQ
M4
CN7402 AKM1234- -TBB
JA6801 AKP1232- -TFB
JA6881 AKP1232- -TFB
MD1
CN9302 CKS3830-
CN9301 AKP1226-
RX0-
RX0+
RX0SHI
RX2SHI
RX2-
RX2+
DDC/SCL
DDC/SDA
DDC/+5VDC
DDC/GND
DC1
CN8703 AKM1289- -TBB
S8701
ASG1097-
LIVE IN
NEUTRAL
AC INLET AKP1272-
ADG1215-
J SW ASSY (AWZ6977)
E MDR ASSY (AWZ6922)

With the ⚠ mark, be sure to use parts of identical designation.

3.3 MR MAIN BOARD ASSY (1/12)

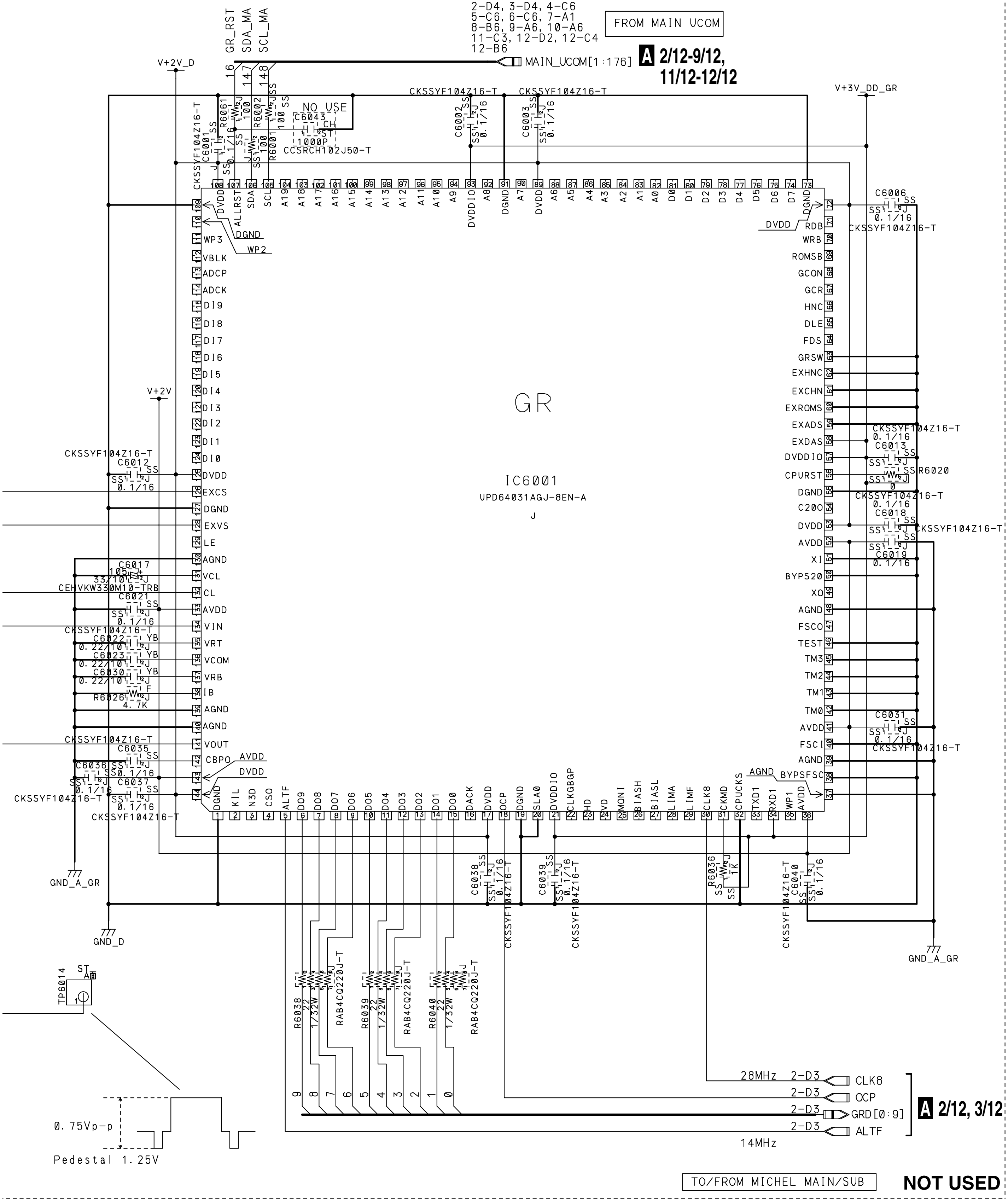
A 1/12 MR MAIN BOARD ASSY (AWZ6926)

● GR BLOCK


NOT USED
V+3V_DD
V+3V_DD_GR
F6002
CCG1162- -T
C6007
ST
10/6.3
ACG7046- -T
NO USE
V+2V
V+2V_D
CCG1162- -T
F6001
C6008
ST
10/6.3
ACG7046- -T
NO USE
GND_D
V+5V_A
V+5V_A_GR
F6003
CCG1162- -T
C6009
ST
10/6.3
ACG7046- -T
NO USE
GND
R6021 0
R6016 0
R6015 0
R6014 0
R6013 0
R6012 0
R6011 0
R6041 0
R6043 0
R6045 0
NO USE
R6042 ST 0
R6044 ST 0
R6046 ST 0
GND
GND_A_GR
GND_D
1.0Vp-p
Sync-tip 4.9V
0.5Vp-p
Sync-tip 0.75V
R6010 SS 10K
R6017 SS 10K
TP6013 ST
V+5V_A_GR
from REG IO
AIR_V
12-B2
A 12/12
DC 3.2V
47/16
105
C6027
CEHVKW470M16-TRB
R6018 6.8K
CKSSYF104Z16-T
C6028
SS 0.1/16
R6019 SS 100
Q6005
HN1B04FU(YGR)-TRB
R6027 12K
R6024 330
LCYC180K2125-T
L6001 18
R6031 470
C6033 CH 82P
C6034 CH 82P
R6032 330
R6025 SS 100
R6033 560
Q6005
C6029 YB 1.0u/6.3V
GND_A_GR
AMP & 6M LPF
NO USE
R6003 SS ST 0
V+5V_A_GR
2SC4116(YGR)-TLB
Q6006
R6035 SS 100
to REG IO
GR_OUT
12-B2
A 12/12
R6034 SS 100
R6037 1.0K
C6041 SS 0.1/16
CKSSYF104Z16-T
C6005 10/6.3
ACG7046- -T
R6049 3.3K
R6050 2.2K
R6051 750
Q6007
HN1C01FU(YGR)-T
R6053 510
R6052 560
R6054 220
DC 2.0V
Q6007
R6055 100
R6056 3.3K
R6057 2.2K
C6011 SS 0.1/16
CKSSYF104Z16-T
NO USE
R6007 SS ST 100
R6006 470
C6004 SS 0.1/16
CKSSYF104Z16-T
NO USE
R6004 ST SS 100
Q6001
2SA1586(YGR)-TLB
C6042
105
CEHVKW470M6R3-TRB
47/6.3
R6005 SS 0
GND_A_GR
AMP
1.0Vp-p
DC2.5V
NOT USED

A 1/12

NOT USED



2-D4, 3-D4, 4-C6
5-C6, 6-C6, 7-A1
8-B6, 9-A6, 10-A6
11-C3, 12-D2, 12-C4
12-B6
FROM MAIN UCOM
MAIN_UCOM[1:176]
A 2/12-9/12, 11/12-12/12
GR_RST
SDA_MA
SCL_MA
16
147
148
V+2V_D
V+3V_DD_GR
V+2V
NO USE
C6043
1000P
CCSRCH102J50-T
R6061
R6002
R6001
100
C6001
C6002
C6003
CKSSYF104Z16-T
0.1/16
C6006
C6012
C6013
C6017
33/10
CEHVKW330M10-TRB
C6018
C6019
C6021
C6022
C6023
C6030
0.22/10
R6026
4.7K
R6020
0
C6031
C6035
C6036
C6037
C6038
C6039
C6040
R6036
1K
GR
IC6001
UPD64031AGJ-8EN-A
DVDD
ALLRST
SDA
SCL
A19
A18
A17
A16
A15
A14
A13
A12
A11
A10
A9
DVDDIO
A8
DGND
A7
A6
A5
A4
A3
A2
A1
A0
D0
D1
D2
D3
D4
D5
D6
D7
WP3
WP2
VBLK
ADCP
ADCK
DI9
DI8
DI7
DI6
DI5
DI4
DI3
DI2
DI1
DI0
EXCS
EXVS
LE
AGND
VCL
CL
AVDD
VIN
VRT
VCOM
VRB
IB
VOUT
CBPO
RDB
WRB
ROMSB
GCON
GCR
HNC
DLE
FDS
GRSW
EXHNC
EXCHN
EXROMS
EXADS
EXDAS
CPURST
C20O
XI
BYPS20
XO
FSCO
TEST
TM3
TM2
TM1
TM0
FSCI
BYPSFSC
KIL
N3D
CSO
ALTF
DO9
DO8
DO7
DO6
DO5
DO4
DO3
DO2
DO1
DO0
DACK
OCP
SLA0
CLKGBGP
HD
VD
MONI
BIASH
BIASL
LIMA
LIMF
CLK8
CKMD
CPUCKS
TXD1
RXD1
WP1
GND_A_GR
GND_D
TP6014
ST
R6038
R6039
R6040
22
1/32W
RAB4CQ220J-T
9 8 7 6 5 4 3 2 1 0
28MHz
14MHz
2-D3
CLK8
OCP
GRD[0:9]
ALTF
A 2/12, 3/12
0.75Vp-p
Pedestal 1.25V
TO/FROM MICHEL MAIN/SUB

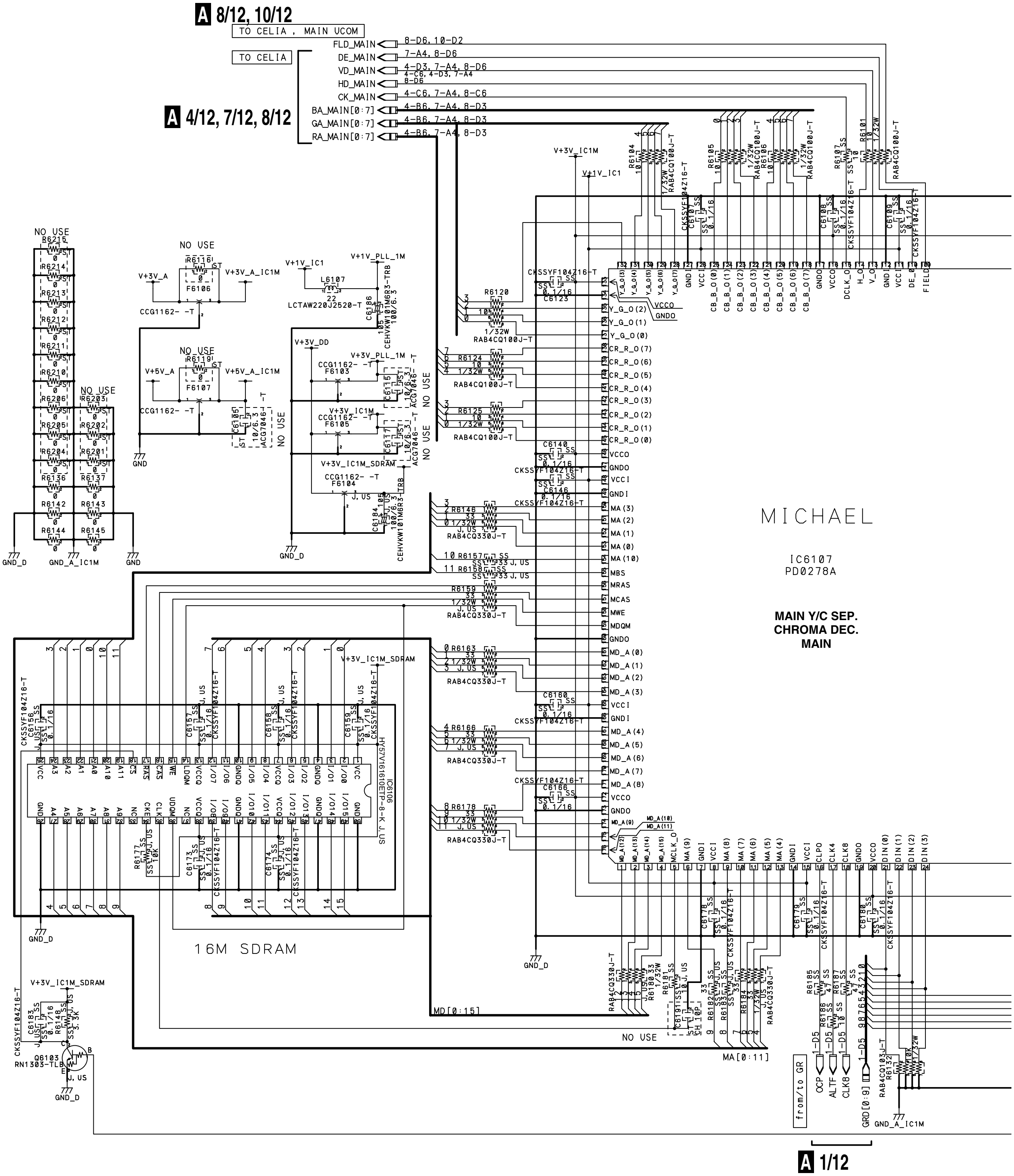
NOT USED

A 1/12

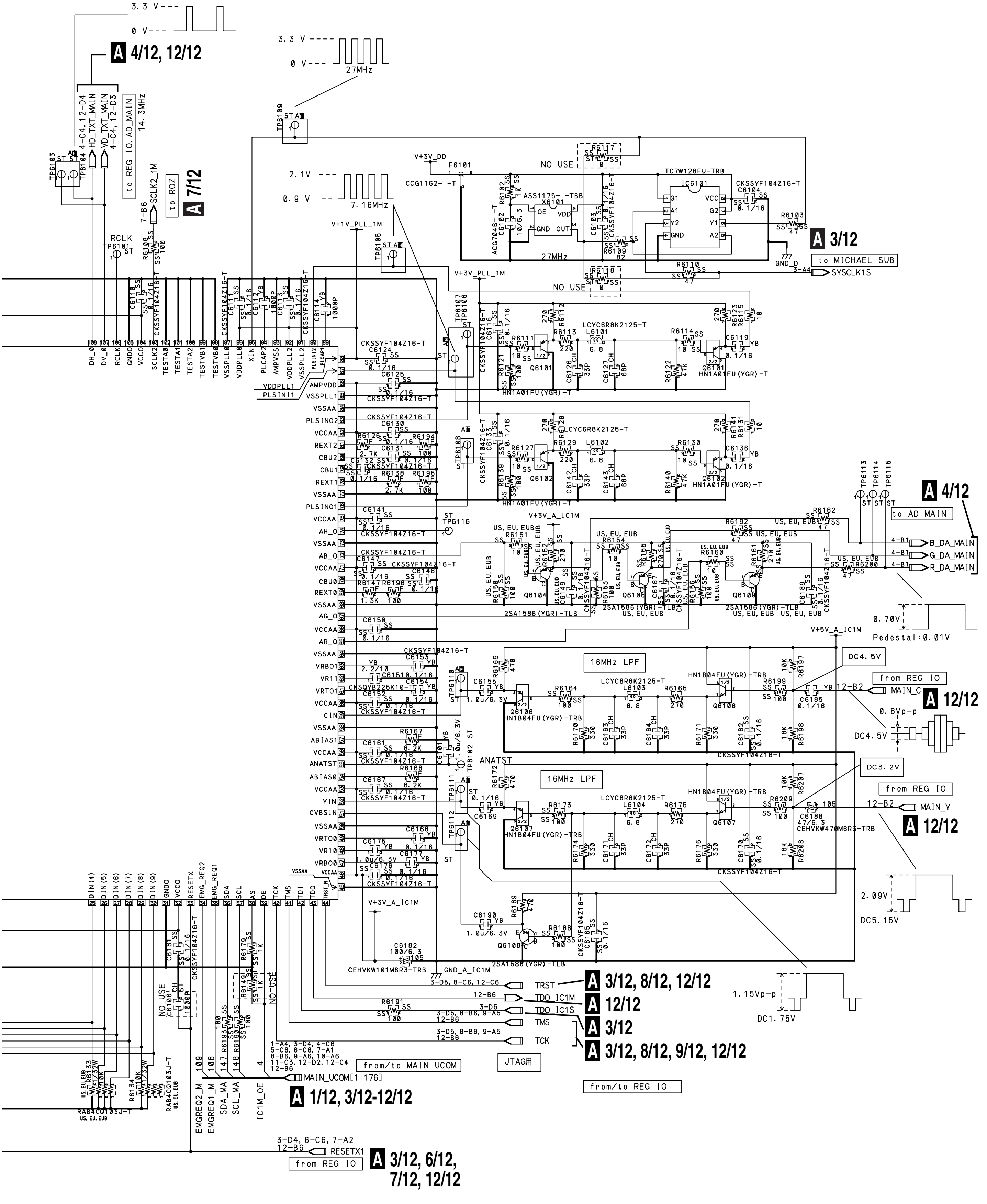
3.4 MR MAIN BOARD ASSY (2/12)

A 2/12 MR MAIN BOARD ASSY (AWZ6926)

● MICHEL MAIN BLOCK


A 8/12, 10/12
TO CELIA , MAIN UCOM
TO CELIA
A 4/12, 7/12, 8/12
FLD_MAIN
DE_MAIN
VD_MAIN
HD_MAIN
CK_MAIN
BA_MAIN[0:7]
GA_MAIN[0:7]
RA_MAIN[0:7]
MICHAEL
IC6107
PD0278A
MAIN Y/C SEP.
CHROMA DEC.
MAIN
16M SDRAM
IC6106
HY57V161610ETP-8-K J,US
NO USE
MD[0:15]
MA[0:11]
from/to GR
OCP
ALTF
CLK8
GRD[0:9]
Q6103
RN1303-TLB
GND_D
GND_A_IC1M
A 1/12

A 2/12

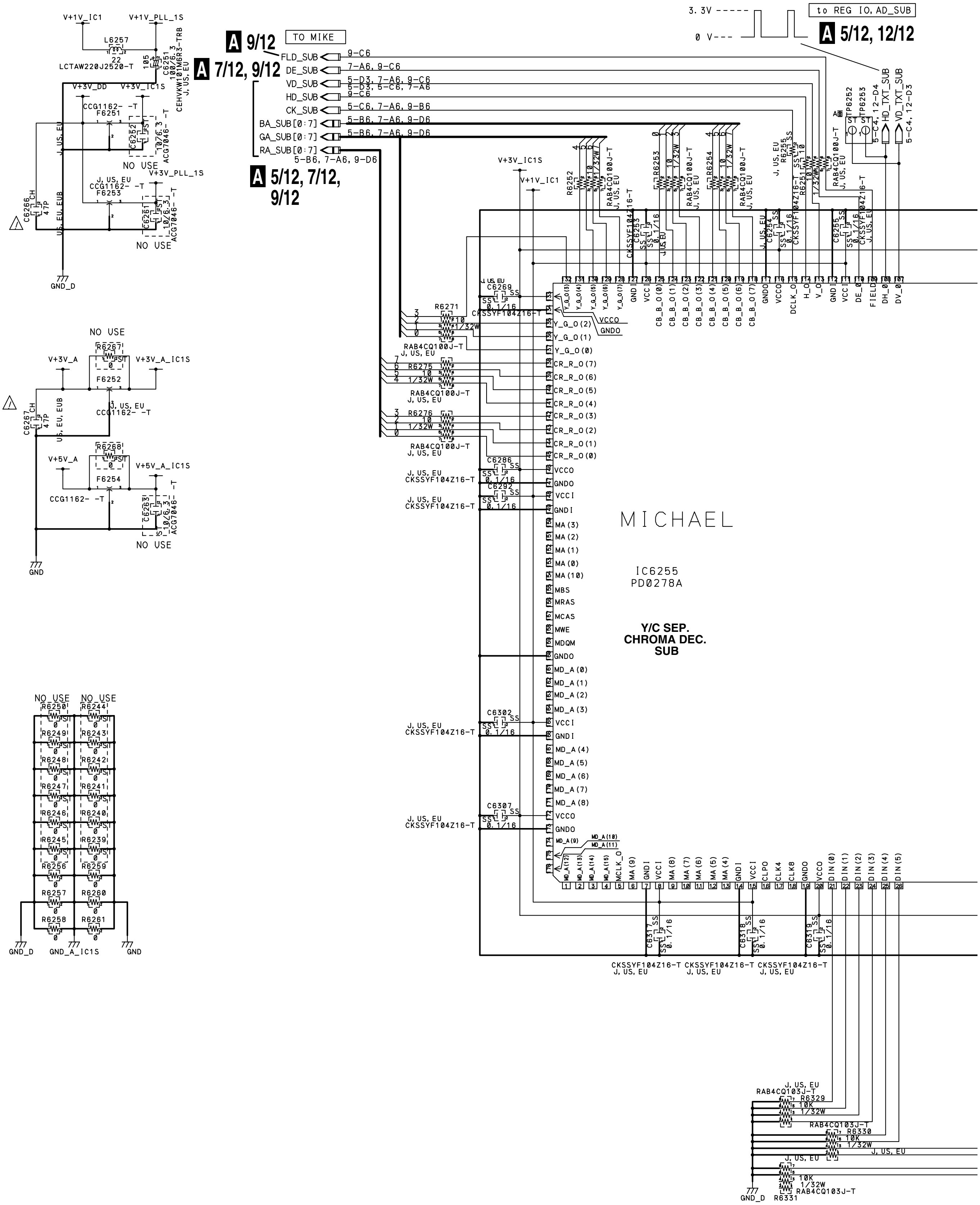

3.3 V
0 V
A 4/12, 12/12
3.3 V
0 V
27MHz
TP6109
TP6103
TP6104
4-C4, 12-D4
HD_TXT_MAIN
VD_TXT_MAIN
4-C4, 12-D3
to REG IO, AD_MAIN
14.3MHz
SCLK2_1M
7-B6
to ROZ
A 7/12
RCLK
TP6101
R6108
V+3V_DD
F6101
CCG1162--T
NO USE
R6117
TC7W126FU-TRB
IC6101
CKSSYF104Z16-T
C6104
ASS1175--TBB
X6101
OE
VDD
GND
OUT
ACG7046--T
C6102
10/6.3
C6103
R6109
82
27MHz
G1
A1
Y2
GND
VCC
G2
Y1
A2
R6103
47
A 3/12
GND_D
R6110
47
to MICHAEL SUB
3-A4
SYSCLK1S
R6118
2.1V
0.9 V
7.16MHz
V+1V_PLL_1M
TP6105
V+3V_PLL_1M
TP6107
TP6106
C6116
R6112
270
LCYC6R8K2125-T
R6113
220
L6101
6.8
R6114
10
R6123
R6115
270
10
C6119
R6111
10
Q6101
R6121
100
C6126
33P
C6127
68P
R6122
47K
Q6101
HN1A01FU(YGR)-T
HN1A01FU(YGR)-T
C6110
C6111
C6112
1000P
C6113
C6114
1000P
DH_0
DV_0
RCLK
GNDO
VCCO
SCLK2
TESTA0
TESTA1
TESTA2
TESTVB1
TESTVB0
VSSPLL0
VDDPLL0
XIN
PLCAP2
AMPVSS
VDDPLL2
VSSPLL2
PLSINI2
PLCAP1
CKSSYF104Z16-T
C6124
C6125
VDDPLL1
PLSINI1
AMPVDD
VSSPLL1
VSSAA
PLSINO2
VCCAA
REXT2
CBU2
CBU1
REXT1
VSSAA
PLSINO1
VCCAA
AH_O
VSSAA
AB_O
VCCAA
CBU0
REXT0
VSSAA
AG_O
VCCAA
AR_O
VSSAA
VRBO1
VR11
VRTO1
VCCAA
CIN
VSSAA
ABIAS1
VCCAA
ANATST
ABIAS0
VCCAA
YIN
CVBSIN
VSSAA
VRTO0
VR10
VRBO0
VSSAA
VCCAA
C6130
R6126
2.7K
C6131
R6194
100
C6132
R6138
2.7K
R6195
100
TP6108
C6133
R6128
270
LCYC6R8K2125-T
R6127
R6129
220
L6102
6.8
R6130
R6131
270
10
C6136
Q6102
R6139
100
C6142
33P
C6143
68P
R6140
47K
Q6102
HN1A01FU(YGR)-T
HN1A01FU(YGR)-T
C6141
TP6116
V+3V_A_IC1M
US, EU, EUB
R6151
10
R6152
270
R6154
10
R6155
270
R6160
10
R6161
270
Q6104
Q6105
Q6109
R6150
100
C6149
R6153
100
C6187
R6156
100
R6157
100
C6189
2SA1586(YGR)-TLB
R6192
47
R6162
47
R6200
47
TP6113
TP6114
TP6115
A 4/12
to AD MAIN
4-B1
B_DA_MAIN
G_DA_MAIN
R_DA_MAIN
0.70V
Pedestal:0.01V
C6147
C6148
R6147
1.3K
R6196
100
C6150
C6153
C6151
C6154
CKSQYB225K10-T
C6152
V+5V_A_IC1M
16MHz LPF
DC4.5V
R6169
470
TP6110
C6155
1.0u/6.3V
Q6106
HN1B04FU(YGR)-TRB
R6164
100
LCYC6R8K2125-T
L6103
6.8
R6165
270
HN1B04FU(YGR)-TRB
R6199
100
R6197
10K
C6185
12-B2
from REG IO
MAIN_C
A 12/12
0.6Vp-p
DC4.5V
R6170
330
C6163
33P
C6164
33P
R6171
330
C6162
R6198
18K
R6167
8.2K
C6161
C6101
1.0u/6.3V
TP6102
R6168
8.2K
C6167
ANATST
16MHz LPF
DC3.2V
R6172
470
TP6111
C6169
Q6107
HN1B04FU(YGR)-TRB
R6173
100
LCYC6R8K2125-T
L6104
6.8
R6175
270
HN1B04FU(YGR)-TRB
R6209
100
R6207
10K
C6188
47/6.3
CEHVKW470M6R3-TRB
105
12-B2
from REG IO
MAIN_Y
A 12/12
R6174
330
C6171
33P
C6172
33P
R6176
330
C6170
R6208
18K
TP6112
C6168
C6175
C6177
C6176
1.0u/6.3V
2.09V
DC5.15V
DIN(4)
DIN(5)
DIN(6)
DIN(7)
DIN(8)
DIN(9)
GNDO
VCCO
RESETX
EMG_REQ2
EMG_REQ1
SDA
SCL
AS
OE
TCK
TMS
TDI
TDO
TRST_N
V+3V_A_IC1M
R6189
470
C6190
1.0u/6.3V
Q6108
R6188
100
C6165
2SA1586(YGR)-TLB
C6182
100/6.3
CEHVKW101M6R3-TRB
GND_A_IC1M
C6181
C6106
1000P
NO USE
R6178
1K
R6149
1K
NO USE
3-D5, 8-C6, 12-C6
TRST
A 3/12, 8/12, 12/12
12-B6
TDO_IC1M
A 12/12
R6191
100
3-D5
TDO_IC1S
3-D5, 8-B6, 9-A5
12-B6
TMS
A 3/12
3-D5, 8-B6, 9-A5
12-B6
TCK
A 3/12, 8/12, 9/12, 12/12
1.15Vp-p
DC1.75V
R6193
100
R6190
100
1-A4, 3-D4, 4-C6
5-C6, 6-C6, 7-A1
8-B6, 9-A6, 10-A6
11-C3, 12-D2, 12-C4
12-B6
from/to MAIN UCOM
JTAG用
109
108
147
148
4
MAIN_UCOM[1:176]
A 1/12, 3/12-12/12
from/to REG IO
R6133
R6134
RAB4CQ103J-T
US, EU, EUB
EMGREQ2_M
EMGREQ1_M
SDA_MA
SCL_MA
IC1M_OE
3-D4, 6-C6, 7-A2
12-B6
RESETX1
from REG IO
A 3/12, 6/12, 7/12, 12/12

A B C D E F

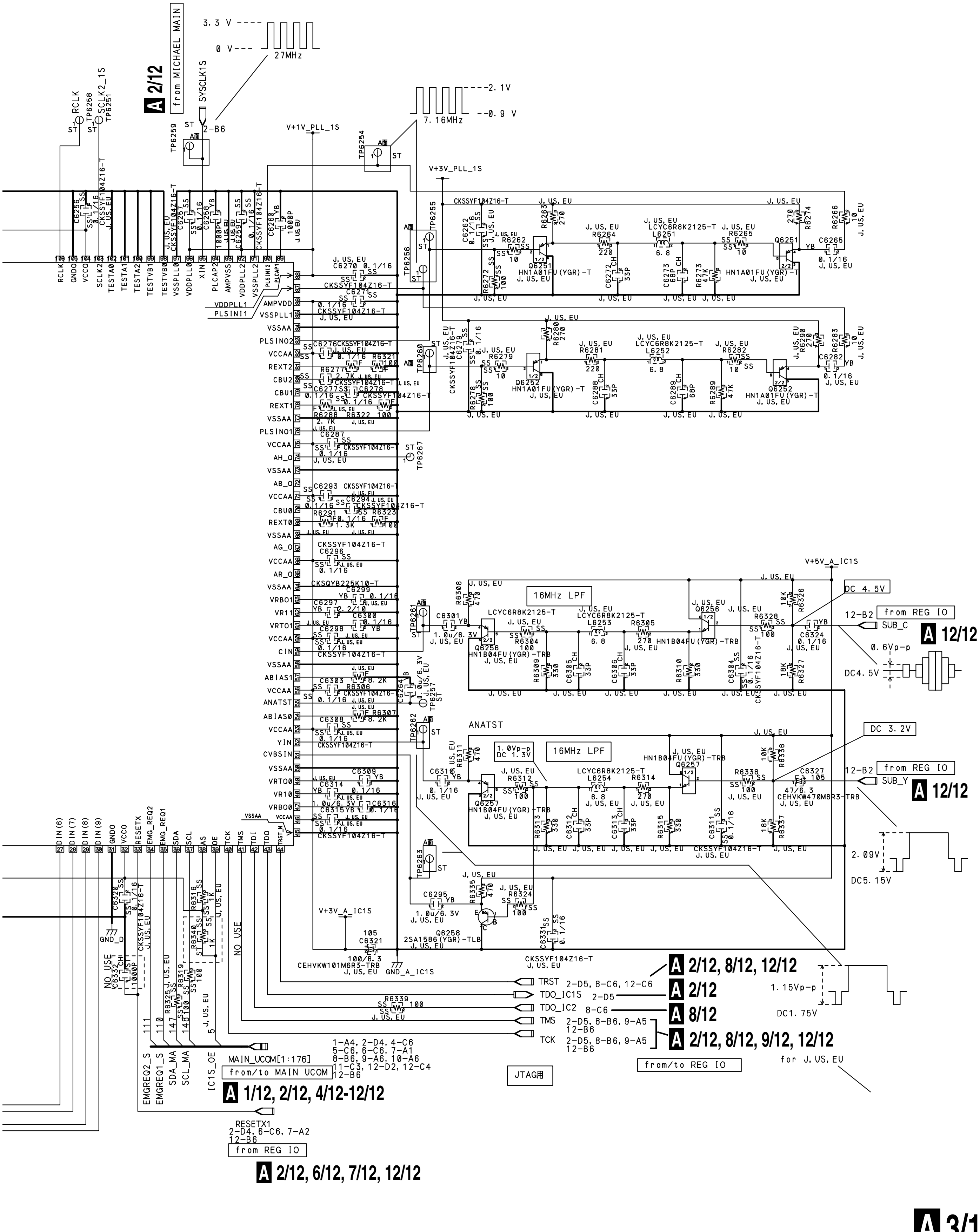
A 2/12

3.5 MR MAIN BOARD ASSY (3/12)

A 3/12 MR MAIN BOARD ASSY (AWZ6926) ● MICHEL SUB BLOCK


A
B
C
D
E
F
A 9/12
TO MIKE
A 7/12, 9/12
A 5/12, 7/12, 9/12
A 5/12, 12/12
to REG IO, AD_SUB
3.3V
0 V
FLD_SUB
DE_SUB
VD_SUB
HD_SUB
CK_SUB
BA_SUB[0:7]
GA_SUB[0:7]
RA_SUB[0:7]
9-C6
7-A6, 9-C6
5-D3, 7-A6, 9-C6
5-D3, 5-C6, 7-A6
9-C6
5-C6, 7-A6, 9-B6
5-B6, 7-A6, 9-D6
5-B6, 7-A6, 9-D6
5-B6, 7-A6, 9-D6
HD_TXT_SUB
VD_TXT_SUB
5-C4, 12-D4
5-C4, 12-D3
TP6252
TP6253
V+1V_IC1
V+1V_PLL_1S
L6257
22
LCTAW220J2520-T
C6251
105
CEHVKW101M6R3-TRB
V+3V_DD
V+3V_IC1S
CCG1162- -T
F6251
C6252
ACG7046- -T
NO USE
V+3V_PLL_1S
F6253
C6261
C6266
47P
CH
J, US, EU
US, EU, EUB
GND_D
V+3V_A
V+3V_A_IC1S
R6267
F6252
C6267
V+5V_A
V+5V_A_IC1S
R6268
F6254
C6263
GND
R6250
R6244
R6249
R6243
R6248
R6242
R6247
R6241
R6246
R6240
R6245
R6239
R6256
R6259
R6257
R6260
R6258
R6261
GND_A_IC1S
V+3V_IC1S
V+1V_IC1
R6252
R6253
R6254
R6255
R6251
RAB4CQ100J-T
1/32W
10
C6253
C6254
C6255
CKSSYF104Z16-T
0.1/16
SS
C6269
R6271
R6275
R6276
C6286
C6292
C6302
C6307
C6317
C6318
C6319
Y_G_O(2)
Y_G_O(1)
Y_G_O(0)
CR_R_O(7)
CR_R_O(6)
CR_R_O(5)
CR_R_O(4)
CR_R_O(3)
CR_R_O(2)
CR_R_O(1)
CR_R_O(0)
VCCO
GNDO
VCCI
GNDI
MA(3)
MA(2)
MA(1)
MA(0)
MA(10)
MBS
MRAS
MCAS
MWE
MDQM
GNDO
MD_A(0)
MD_A(1)
MD_A(2)
MD_A(3)
VCCI
GNDI
MD_A(4)
MD_A(5)
MD_A(6)
MD_A(7)
MD_A(8)
VCCO
GNDO
MD_A(9)
MD_A(10)
MD_A(11)
MD_A(12)
MD_A(13)
MD_A(14)
MD_A(15)
MCLK_O
MA(9)
GNDI
VCCI
MA(8)
MA(7)
MA(6)
MA(5)
MA(4)
GNDI
VCCI
CLPO
CLK4
CLK8
GNDO
VCCO
DIN(0)
DIN(1)
DIN(2)
DIN(3)
DIN(4)
DIN(5)
Y_G_O(3)
Y_G_O(4)
Y_G_O(5)
Y_G_O(6)
Y_G_O(7)
GNDI
VCCI
CB_B_O(0)
CB_B_O(1)
CB_B_O(2)
CB_B_O(3)
CB_B_O(4)
CB_B_O(5)
CB_B_O(6)
CB_B_O(7)
GNDO
VCCO
DCLK_O
H_O
V_O
GNDI
VCCI
DE_O
FIELD
DH_O
DV_O
MICHAEL
IC6255
PD0278A
Y/C SEP.
CHROMA DEC.
SUB
RAB4CQ103J-T
R6329
R6330
R6331
10K
1/32W
GND_D

A 3/12



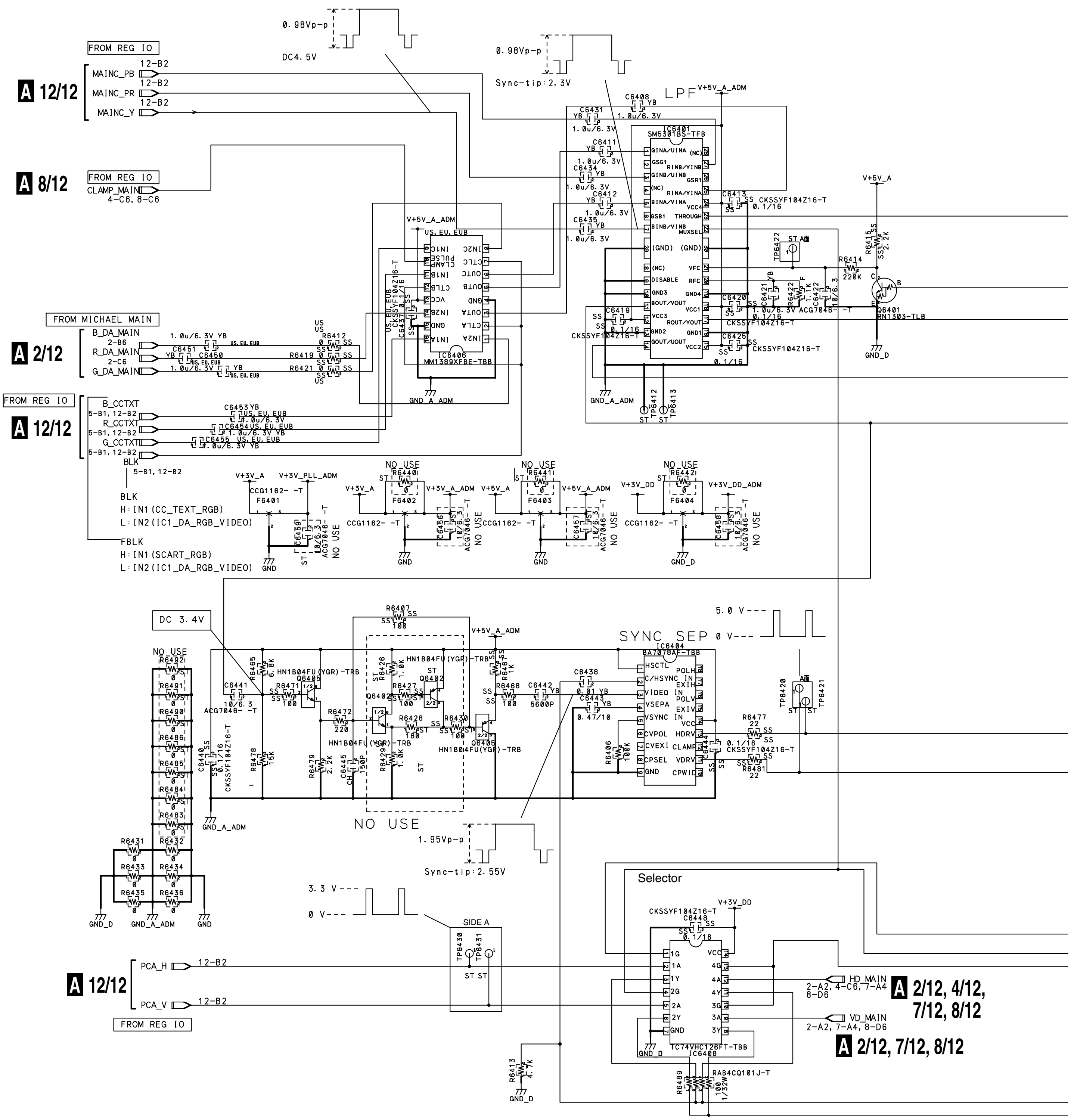
A 2/12
from MICHAEL MAIN
SYSCLK1S
2-B6
3.3 V
0 V
27MHz
2.1V
0.9 V
7.16MHz
RCLK
TP6258
SCLK2_1S
TP6251
TP6259
TP6254
TP6255
TP6256
V+1V_PLL_1S
V+3V_PLL_1S
CKSSYF104Z16-T
J, US, EU
HN1A01FU(YGR)-T
Q6251
Q6252
LCYC6R8K2125-T
L6251
L6252
R6262
R6263
R6264
R6265
R6266
R6274
C6265
R6272
C6272
C6273
R6273
R6279
R6280
R6281
R6282
R6283
R6290
C6282
R6278
C6288
C6289
R6289
RCLK
GNDO
VCCO
SCLK2
TESTA0
TESTA1
TESTA2
TESTVB1
TESTVB0
VSSPLL0
VDDPLL0
XIN
PLCAP2
AMPVSS
VDDPLL2
VSSPLL2
PLSINI2
PLCAP1
VDDPLL1
PLSINI1
AMPVDD
VSSPLL1
VSSAA
PLSINO2
VCCAA
REXT2
CBU2
CBU1
REXT1
PLSINO1
AH_O
AB_O
CBU0
REXT0
AG_O
AR_O
VRBO1
VR11
VRTO1
CIN
ABIAS1
ANATST
ABIAS0
YIN
CVBSIN
VRTO0
VR10
VRBO0
TP6267
TP6260
TP6261
TP6262
TP6263
TP6257
16MHz LPF
V+5V_A_IC1S
DC 4.5V
DC 3.2V
Q6256
Q6257
HN1B04FU(YGR)-TRB
R6328
C6324
R6326
R6327
12-B2
from REG IO
SUB_C
A 12/12
0.6Vp-p
DC4.5V
1.0Vp-p
DC 1.3V
R6338
C6327
CEHVKW470M6R3-TRB
SUB_Y
R6336
R6337
2.09V
DC5.15V
Q6258
2SA1586(YGR)-TLB
C6295
R6335
R6324
C6331
V+3V_A_IC1S
C6321
CEHVKW101M6R3-TRB
GND_A_IC1S
DIN(6)
DIN(7)
DIN(8)
DIN(9)
GNDO
VCCO
RESETX
EMG_REQ2
EMG_REQ1
SDA
SCL
AS
OE
TCK
TMS
TDI
TDO
TRST_N
GND_D
C6320
R6316
R6340
R6319
R6325
C6332
NO USE
TRST
TDO_IC1S
TDO_IC2
TMS
TCK
2-D5, 8-C6, 12-C6
2-D5
8-C6
2-D5, 8-B6, 9-A5
12-B6
A 2/12, 8/12, 12/12
A 2/12
A 8/12
A 2/12, 8/12, 9/12, 12/12
R6339
from/to REG IO
1.15Vp-p
DC1.75V
for J, US, EU
JTAG用
MAIN_UCOM[1:176]
from/to MAIN UCOM
1-A4, 2-D4, 4-C6
5-C6, 6-C6, 7-A1
8-B6, 9-A6, 10-A6
11-C3, 12-D2, 12-C4
12-B6
EMGREQ2_S
EMGREQ1_S
SDA_MA
SCL_MA
IC1S_OE
A 1/12, 2/12, 4/12-12/12
RESETX1
2-D4, 6-C6, 7-A2
12-B6
from REG IO
A 2/12, 6/12, 7/12, 12/12

A 3/12

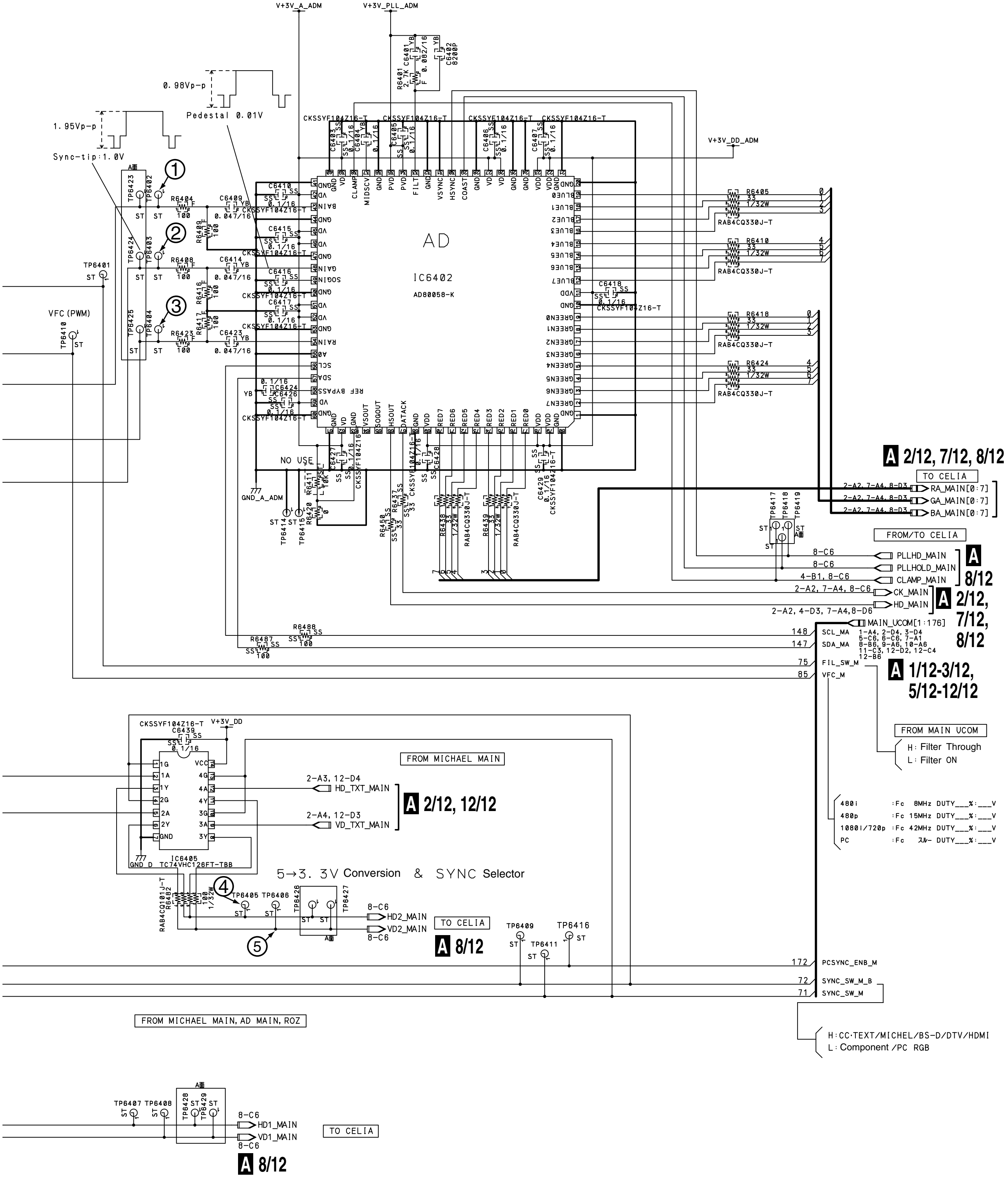
3.6 MR MAIN BOARD ASSY (4/12)

A 4/12 MR MAIN BOARD ASSY (AWZ6926)

● **AD MAIN BLOCK**


A
B
C
D
E
F
FROM REG IO
A 12/12
MAINC_PB
MAINC_PR
MAINC_Y
12-B2
0.98Vp-p
DC4.5V
0.98Vp-p
Sync-tip:2.3V
A 8/12
CLAMP_MAIN
4-C6, 8-C6
LPF
V+5V_A_ADM
IC6401
SM5301BS-TFB
C6408
C6431
C6411
C6434
C6412
C6435
C6413
CKSSYF104Z16-T
V+5V_A
R6415
R6414
220K
Q6401
RN1303-TLB
GND_D
TP6422
C6419
C6420
C6421
C6422
R6422
C6425
ACG7046-T
GND_A_ADM
TP6412
TP6413
FROM MICHAEL MAIN
A 2/12
B_DA_MAIN
R_DA_MAIN
G_DA_MAIN
2-B6
2-C6
C6451
C6450
R6412
R6419
R6421
US, EU, EUB
IC6406
MM1389XFBE-TBB
GND_A_ADM
A 12/12
B_CCTXT
R_CCTXT
G_CCTXT
5-B1, 12-B2
C6453
C6454
C6455
BLK
H:IN1(CC_TEXT_RGB)
L:IN2(IC1_DA_RGB_VIDEO)
FBLK
H:IN1(SCART_RGB)
L:IN2(IC1_DA_RGB_VIDEO)
V+3V_A
V+3V_PLL_ADM
CCG1162-T
F6401
F6402
F6403
F6404
R6440
R6441
R6442
C6459
C6456
C6457
C6458
NO USE
V+3V_DD
V+3V_DD_ADM
GND
DC 3.4V
R6407
100
V+5V_A_ADM
SYNC SEP
5.0 V
0 V
IC6404
BA7078AF-TBB
HSCTL
C/HSYNC IN
VIDEO IN
VSEPA
VSYNC IN
CVPOL
CVEXI
CPSEL
GND
POLH
EXIH
POLV
EXIV
VCC
HDRV
CLAMP
VDRV
CPWID
R6492
R6491
R6490
R6486
R6485
R6484
R6483
R6431
R6432
R6433
R6434
R6435
R6436
C6441
R6465
R6471
Q6405
HN1B04FU(YGR)-TRB
R6426
Q6402
R6427
R6428
R6430
Q6403
R6472
R6479
C6445
R6429
R6467
R6468
C6442
5600P
C6438
C6443
0.47/10
R6406
100K
C6440
R6478
15K
R6477
R6481
22
TP6420
TP6421
1.95Vp-p
Sync-tip:2.55V
3.3 V
0 V
SIDE A
TP6430
TP6431
ST ST
GND_D
GND_A_ADM
GND
A 12/12
PCA_H
PCA_V
12-B2
FROM REG IO
Selector
V+3V_DD
CKSSYF104Z16-T
C6448
0.1/16
1G
1A
1Y
2G
2A
2Y
GND
VCC
4G
4A
4Y
3G
3A
3Y
TC74VHC126FT-TBB
IC6408
HD_MAIN
2-A2, 4-C6, 7-A4, 8-D6
A 2/12, 4/12, 7/12, 8/12
VD_MAIN
2-A2, 7-A4, 8-D6
A 2/12, 7/12, 8/12
R6413
4.7K
R6489
RAB4CQ101J-T
100
1/32W

A 4/12

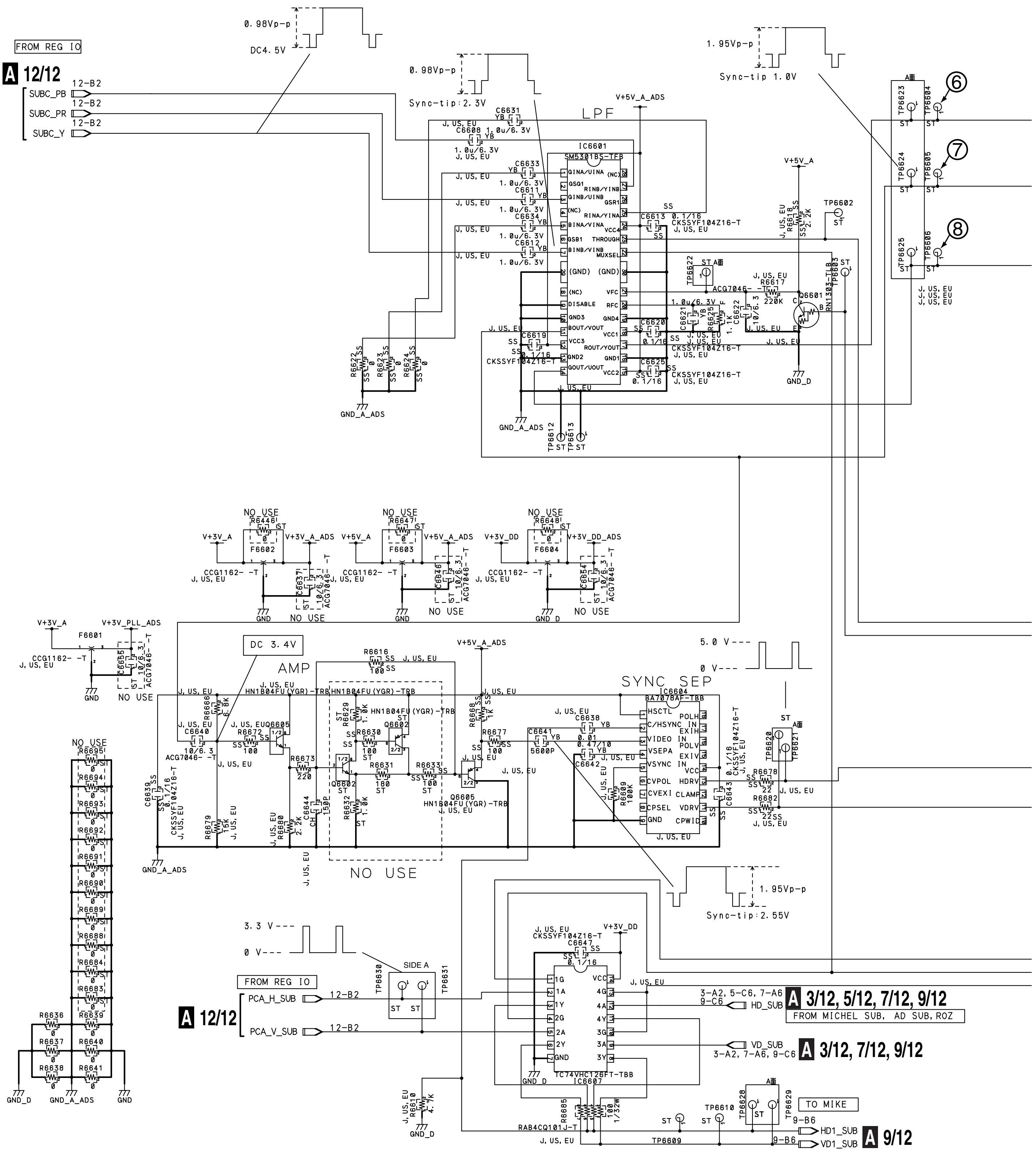

V+3V_A_ADM
V+3V_PLL_ADM
V+3V_DD_ADM
0.98Vp-p
Pedestal 0.01V
1.95Vp-p
Sync-tip:1.0V
AD
IC6402
AD80058-K
①
②
③
④
⑤
TP6401
TP6402
TP6403
TP6404
TP6410
TP6423
TP6424
TP6425
VFC(PWM)
R6404 100
R6408 100
R6423 100
R6409 100
R6416 100
R6417 100
C6409 0.047/16
C6414 0.047/16
C6423 0.047/16
CKSSYF104Z16-T
R6401 2.7K
C6401 0.082/16
C6402 8200P
R6405 33 1/32W RAB4CQ330J-T
R6410 33 1/32W RAB4CQ330J-T
R6418 33 1/32W RAB4CQ330J-T
R6424 33 1/32W RAB4CQ330J-T
R6438 33 1/32W RAB4CQ330J-T
R6439 33 1/32W RAB4CQ330J-T
NO USE
GND_A_ADM
TP6414
TP6415
R6411 10K
R6420 0
R6450
R6437 33
TP6417
TP6418
TP6419
A 2/12, 7/12, 8/12
TO CELIA
2-A2, 7-A4, 8-D3 RA_MAIN[0:7]
2-A2, 7-A4, 8-D3 GA_MAIN[0:7]
2-A2, 7-A4, 8-D3 BA_MAIN[0:7]
FROM/TO CELIA
8-C6 PLLHD_MAIN
8-C6 PLLHOLD_MAIN
4-B1, 8-C6 CLAMP_MAIN
A 8/12
2-A2, 7-A4, 8-C6 CK_MAIN
HD_MAIN
A 2/12, 7/12, 8/12
2-A2, 4-D3, 7-A4, 8-D6 MAIN_UCOM[1:176]
R6488 100
R6487 100
148 SCL_MA
147 SDA_MA
75 FIL_SW_M
85 VFC_M
1-A4, 2-D4, 3-D4 5-C6, 6-C6, 7-A1 8-B6, 9-A6, 10-A6 11-C3, 12-D2, 12-C4 12-B6
A 1/12-3/12, 5/12-12/12
FROM MAIN UCOM
H: Filter Through
L: Filter ON
480i :Fc 8MHz DUTY___%:___V
480p :Fc 15MHz DUTY___%:___V
1080i/720p :Fc 42MHz DUTY___%:___V
PC :Fc スルー DUTY___%:___V
CKSSYF104Z16-T C6439 0.1/16
V+3V_DD
IC6405 TC74VHC126FT-TBB
GND_D
FROM MICHAEL MAIN
2-A3, 12-D4 HD_TXT_MAIN
2-A4, 12-D3 VD_TXT_MAIN
A 2/12, 12/12
5→3.3V Conversion & SYNC Selector
RAB4CQ101J-T R6482 100 1/32W
TP6405
TP6406
TP6426
TP6427
8-C6 HD2_MAIN
VD2_MAIN 8-C6
TO CELIA
A 8/12
TP6409
TP6411
TP6416
172 PCSYNC_ENB_M
72 SYNC_SW_M_B
71 SYNC_SW_M
FROM MICHAEL MAIN, AD MAIN, ROZ
H: CC·TEXT/MICHEL/BS-D/DTV/HDMI
L: Component /PC RGB
TP6407
TP6408
TP6428
TP6429
8-C6 HD1_MAIN
VD1_MAIN 8-C6
TO CELIA
A 8/12

A 4/12

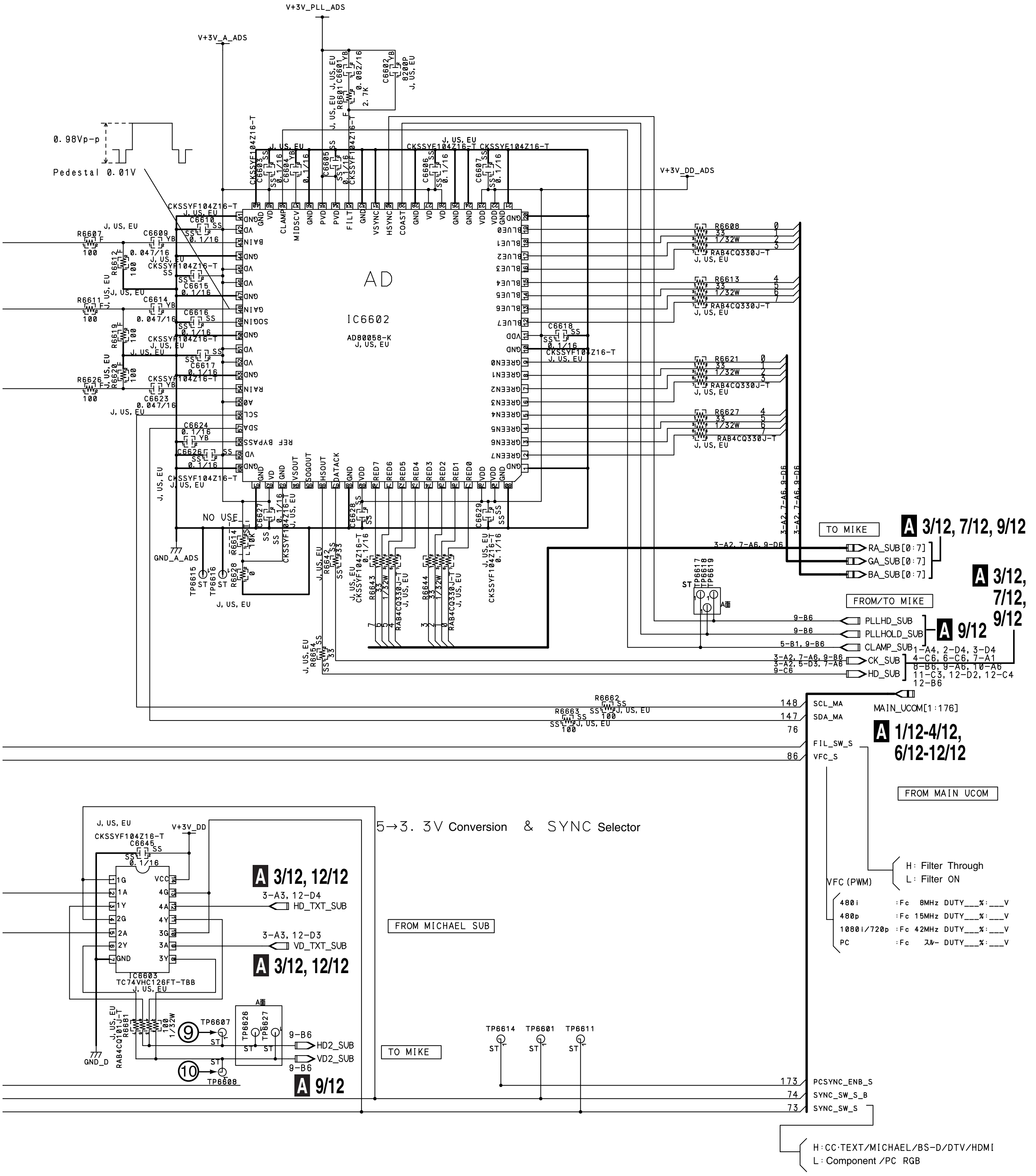
3.7 MR MAIN BOARD ASSY (5/12)

A 5/12 MR MAIN BOARD ASSY (AWZ6926)

● AD SUB BLOCK


FROM REG IO
A 12/12
12-B2
SUBC_PB
SUBC_PR
SUBC_Y
0.98Vp-p
DC4.5V
0.98Vp-p
Sync-tip:2.3V
1.95Vp-p
Sync-tip 1.0V
LPF
V+5V_A_ADS
IC6601
SM5301BS-TFB
QINA/UINA
QSG1
QINB/UINB
(NC)
BINA/VINA
QSB1
BINB/VINB
(GND)
DISABLE
GND3
BOUT/VOUT
VCC3
GND2
GOUT/UOUT
RINB/YINB
GSR1
RINA/YINA
VCC4
THROUGH
MUXSEL
VFC
RFC
GND4
VCC1
ROUT/YOUT
GND1
VCC2
C6631
C6608
C6633
C6611
C6634
C6612
C6613
C6619
C6620
C6625
C6621
C6622
1.0u/6.3V
0.1/16
CKSSYF104Z16-T
J,US,EU
R6622
R6623
R6624
GND_A_ADS
TP6612
TP6613
TP6622
TP6602
TP6603
ACG7046-T
R6617
220K
Q6601
RN1303-TLB
R6618
2.2K
V+5V_A
GND_D
TP6623
TP6624
TP6625
TP6604
TP6605
TP6606
⑥
⑦
⑧
NO USE
R6446
R6647
R6648
F6602
F6603
F6604
V+3V_A
V+3V_A_ADS
V+5V_A
V+5V_A_ADS
V+3V_DD
V+3V_DD_ADS
CCG1162-T
C6637
C6646
C6654
10/6.3
GND
GND_D
V+3V_PLL_ADS
F6601
C6655
DC 3.4V
AMP
R6616
HN1B04FU(YGR)-TRB
Q6605
Q6602
Q6603
R6666
6.8K
C6640
R6672
R6673
220
R6629
R6630
R6631
R6632
R6633
R6668
R6677
C6644
150P
R6679
15K
R6680
2.2K
C6639
SYNC SEP
IC6604
BA7078AF-TBB
HSCTL
C/HSYNC IN
VIDEO IN
VSEPA
VSYNC IN
CVPOL
CVEXI
CPSEL
GND
POLH
EXIH
POLV
EXIV
VCC
HDRV
CLAMP
VDRV
CPWID
C6641
5600P
C6638
0.01
C6642
0.47/10
R6669
100K
C6643
R6678
R6682
22
TP6620
TP6621
5.0 V
0 V
1.95Vp-p
Sync-tip:2.55V
R6695
R6694
R6693
R6692
R6691
R6690
R6689
R6688
R6684
R6683
R6636
R6639
R6637
R6640
R6638
R6641
3.3 V
0 V
SIDE A
TP6630
TP6631
FROM REG IO
A 12/12
PCA_H_SUB
PCA_V_SUB
V+3V_DD
C6647
IC6607
TC74VHC126FT-TBB
1G 1A 1Y 2G 2A 2Y GND
VCC 4G 4A 4Y 3G 3A 3Y
3-A2, 5-C6, 7-A6
9-C6
HD_SUB
A 3/12, 5/12, 7/12, 9/12
FROM MICHEL SUB, AD SUB,ROZ
VD_SUB
3-A2, 7-A6, 9-C6
A 3/12, 7/12, 9/12
R6685
RAB4CQ101J-T
100
1/32W
R6610
4.7K
TP6609
TP6610
TP6628
TP6629
TO MIKE
9-B6
HD1_SUB
VD1_SUB
A 9/12

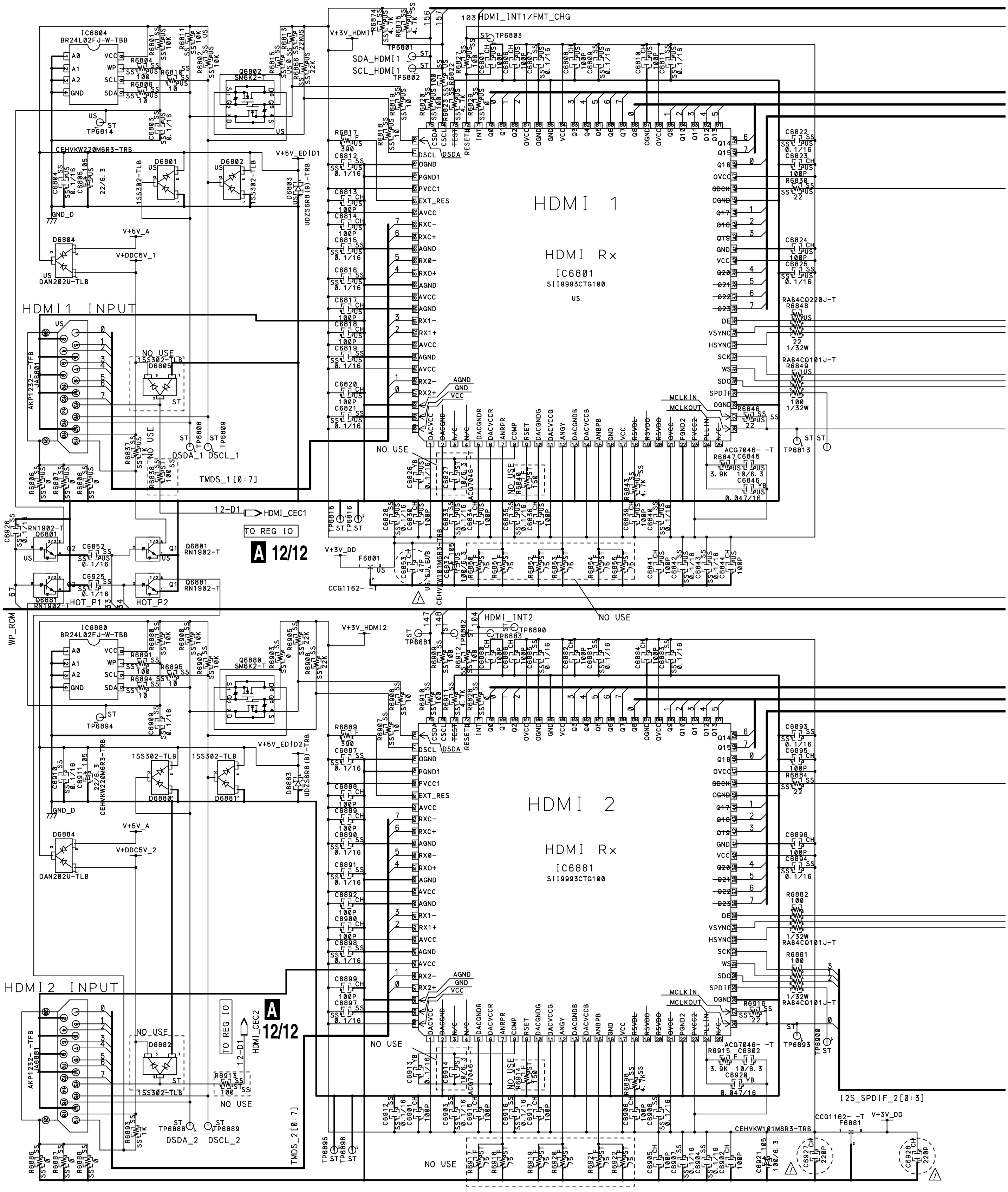
A 5/12


V+3V_PLL_ADS
V+3V_A_ADS
V+3V_DD_ADS
0.98Vp-p
Pedestal 0.01V
AD
IC6602
AD80058-K
J, US, EU
R6601 2.7K
C6601 0.082/16
C6602 8200P
R6607 100
R6611 100
R6626 100
R6612 100
R6619 100
R6620 100
C6609 0.047/16
C6614 0.047/16
C6623 0.047/16
CKSSYF104Z16-T
R6608 33 1/32W RAB4CQ330J-T
R6613 33 1/32W RAB4CQ330J-T
R6621 33 1/32W RAB4CQ330J-T
R6627 33 1/32W RAB4CQ330J-T
R6643 33 1/32W RAB4CQ330J-T
R6644 33 1/32W RAB4CQ330J-T
R6614 10K
R6628 0
R6642 33
R6664 33
NO USE
GND_A_ADS
TP6615 ST
TP6616 ST
TP6617
TP6618
TP6619
TO MIKE
RA_SUB[0:7]
GA_SUB[0:7]
BA_SUB[0:7]
A 3/12, 7/12, 9/12
FROM/TO MIKE
PLLHD_SUB
PLLHOLD_SUB
CLAMP_SUB
CK_SUB
HD_SUB
A 9/12
A 3/12, 7/12, 9/12
1-A4, 2-D4, 3-D4 4-C6, 6-C6, 7-A1 8-B6, 9-A6, 10-A6 11-C3, 12-D2, 12-C4 12-B6
R6662 100
R6663 100
SCL_MA
SDA_MA
FIL_SW_S
VFC_S
MAIN_UCOM[1:176]
A 1/12-4/12, 6/12-12/12
FROM MAIN UCOM
H: Filter Through
L: Filter ON
VFC (PWM)
480i :Fc 8MHz DUTY___%:___V
480p :Fc 15MHz DUTY___%:___V
1080i/720p :Fc 42MHz DUTY___%:___V
PC :Fc スルー DUTY___%:___V
5→3.3V Conversion & SYNC Selector
V+3V_DD
C6645 0.1/16
IC6603
TC74VHC126FT-TBB
A 3/12, 12/12
3-A3, 12-D4
HD_TXT_SUB
3-A3, 12-D3
VD_TXT_SUB
A 3/12, 12/12
FROM MICHAEL SUB
R6681 RAB4CQ101J-T 100 1/32W
TP6607
TP6608
TP6626
TP6627
HD2_SUB
VD2_SUB
9-B6
TO MIKE
A 9/12
GND_D
TP6614
TP6601
TP6611
PCSYNC_ENB_S
SYNC_SW_S_B
SYNC_SW_S
148
147
76
86
173
74
73
H: CC·TEXT/MICHAEL/BS-D/DTV/HDMI
L: Component /PC RGB

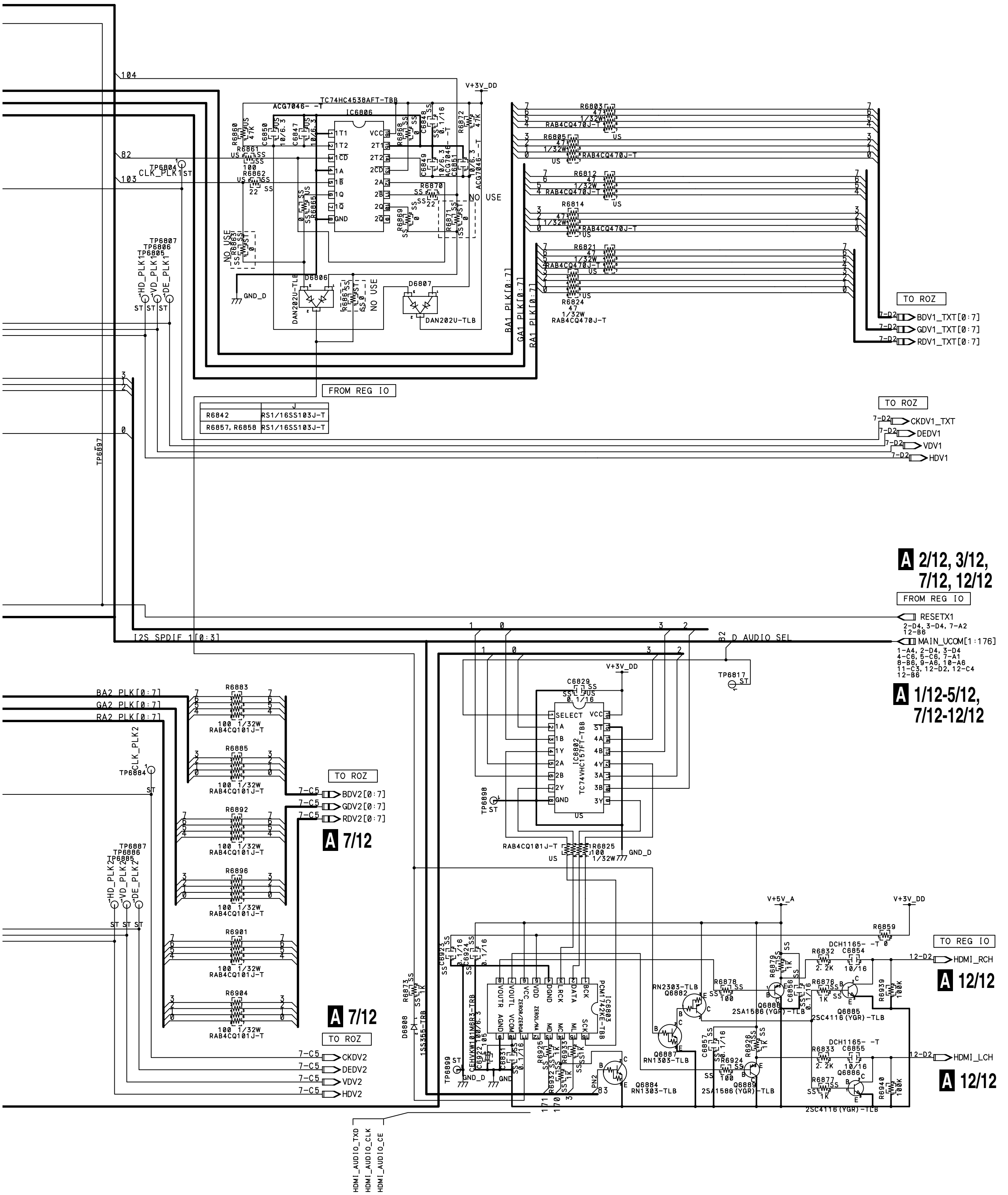
3.8 MR MAIN BOARD ASSY (6/12)

A 6/12 MR MAIN BOARD ASSY (AWZ6926)

● HDMI RX BLOCK


HDMI_INT1/FMT_CHG
IC6804
BR24L02FJ-W-TBB
A0
A1
A2
GND
VCC
WP
SCL
SDA
Q6802
SM6K2-T
V+3V_HDMI1
SDA_HDMI1
SCL_HDMI1
TP6801
TP6802
TP6803
TP6814
CEHVKW220M6R3-TRB
D6801
D6802
1SS302-TLB
V+5V_EDID1
D6803
UDZS6R8(B)-TRB
GND_D
D6804
V+5V_A
V+DDC5V_1
DAN202U-TLB
HDMI1 INPUT
J6801
AKP1232- -TFB
NO USE
D6805
1SS302-TLB
TP6808
TP6809
DSDA_1
DSCL_1
TMDS_1[0:7]
HDMI_CEC1
TO REG IO
A 12/12
RN1902-T
Q6801
C6852
C6925
Q6881
HOT_P1
HOT_P2
V+3V_DD
F6801
CCG1162- -T
HDMI 1
HDMI Rx
IC6801
SII9993CTG100
US
CSDA
CSCL
TEST
RESET#
INT
DSCL
DSDA
OGND
PGND1
PVCC1
EXT_RES
AVCC
RXC-
RXC+
AGND
RX0-
RX0+
RX1-
RX1+
RX2-
RX2+
DACVCC
DACGND
N/C
DACGNDR
DACVCCR
ANRPR
COMP
RSET
DACGNDG
DACVCCG
ANGY
DACGNDB
DACVCCB
ANBPB
GND
VCC
RSVDL
RSVDO
OVCC
PGND2
PVCC2
PLLIN
Q14
Q15
Q16
ODCK
Q17
Q18
Q19
Q20
Q21
Q22
Q23
DE
VSYNC
HSYNC
SCK
WS
SDO
SPDIF
MCLKIN
MCLKOUT
R6846
RAB4CQ220J-T
R6848
RAB4CQ101J-T
R6849
1/32W
ACG7046- -T
R6847
C6845
C6846
TP6813
NO USE
WP_ROM
HDMI_INT2
V+3V_HDMI2
TP6881
TP6883
TP6890
IC6880
BR24L02FJ-W-TBB
Q6880
SM6K2-T
TP6894
V+5V_EDID2-TRB
D6880
D6881
D6883
UDZS6R8(B)-TRB
D6884
V+DDC5V_2
DAN202U-TLB
HDMI 2
HDMI Rx
IC6881
SII9993CTG100
HDMI2 INPUT
J6881
D6882
TO REG IO
HDMI_CEC2
A 12/12
TP6888
TP6889
DSDA_2
DSCL_2
TMDS_2[0:7]
R6882
R6881
RAB4CQ101J-T
R6916
ACG7046- -T
R6915
C6882
C6920
TP6893
TP8900
I2S_SPDIF_2[0:3]
CCG1162- -T
V+3V_DD
F6881
CEHVKW101M6R3-TRB
C6927
C6928
220P
TP6895
TP6896

A 6/12



IC6806
TC74HC4538AFT-TBB
ACG7046- -T
V+3V_DD
TP6804
CLK_PLK1
TP6807
TP6806
TP6805
HD_PLK1
VD_PLK1
DE_PLK1
GND_D
D6806
DAN202U-TLB
D6807
DAN202U-TLB
NO USE
BA1 PLK[0:7]
GA1 PLK[0:7]
RA1 PLK[0:7]
R6803
R6805
R6812
R6814
R6821
R6824
47
1/32W
RAB4CQ470J-T
TO ROZ
BDV1_TXT[0:7]
GDV1_TXT[0:7]
RDV1_TXT[0:7]
FROM REG IO
CKDV1_TXT
DEDV1
VDV1
HDV1
TP6897
A 2/12, 3/12, 7/12, 12/12
RESETX1
2-D4, 3-D4, 7-A2 12-B6
MAIN_UCOM[1:176]
1-A4, 2-D4, 3-D4 4-C6, 5-C6, 7-A1 8-B6, 9-A6, 10-A6 11-C3, 12-D2, 12-C4 12-B6
A 1/12-5/12, 7/12-12/12
I2S_SPDIF 1[0:3]
D_AUDIO_SEL
TP6817
BA2 PLK[0:7]
GA2 PLK[0:7]
RA2 PLK[0:7]
R6883
R6885
R6892
R6896
R6901
R6904
100 1/32W
RAB4CQ101J-T
TP6884
CLK_PLK2
BDV2[0:7]
GDV2[0:7]
RDV2[0:7]
A 7/12
TP6887
TP6886
TP6885
HD_PLK2
VD_PLK2
DE_PLK2
CKDV2
DEDV2
VDV2
HDV2
IC6802
TC74VHC157FT-TBB
C6829
TP6898
R6825
GND_D
IC6803
PCM1742KE-TBB
D6808
1SS355-TRB
TP6899
C6922
CEHVKW101M6R3-TRB
V+5V_A
V+3V_DD
R6859
DCH1165- -T
TO REG IO
HDMI_RCH
HDMI_LCH
A 12/12
Q6882
RN2303-TLB
Q6887
RN1303-TLB
Q6884
RN1303-TLB
Q6888
2SA1586(YGR)-TLB
Q6889
2SA1586(YGR)-TLB
Q6885
2SC4116(YGR)-TLB
Q6886
2SC4116(YGR)-TLB
R6939
R6940
100K
HDMI_AUDIO_TXD
HDMI_AUDIO_CLK
HDMI_AUDIO_CE

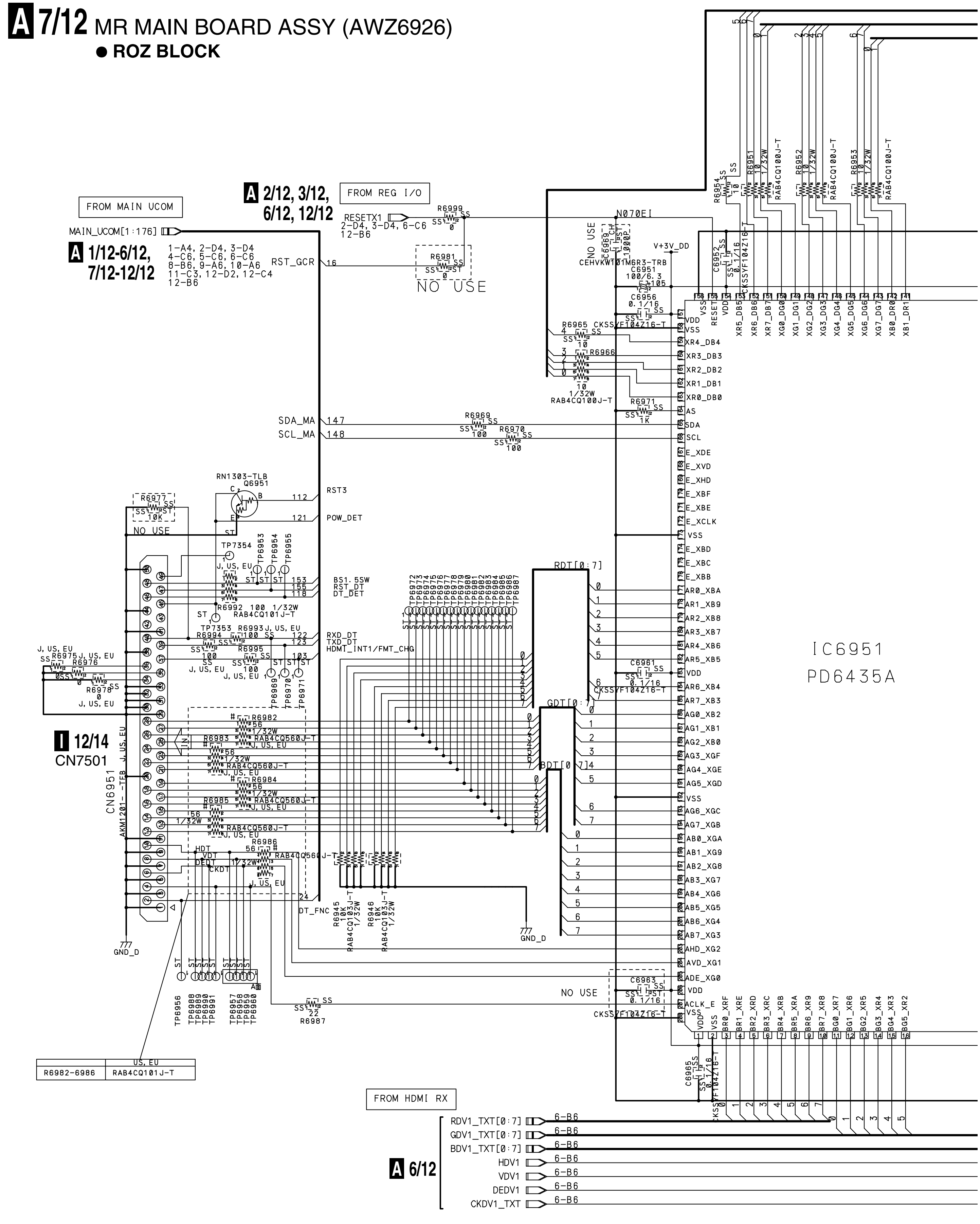
	J
R6842	RS1/16SS103J-T
R6857, R6858	RS1/16SS103J-T

A 6/12

3.9 MR MAIN BOARD ASSY (7/12)

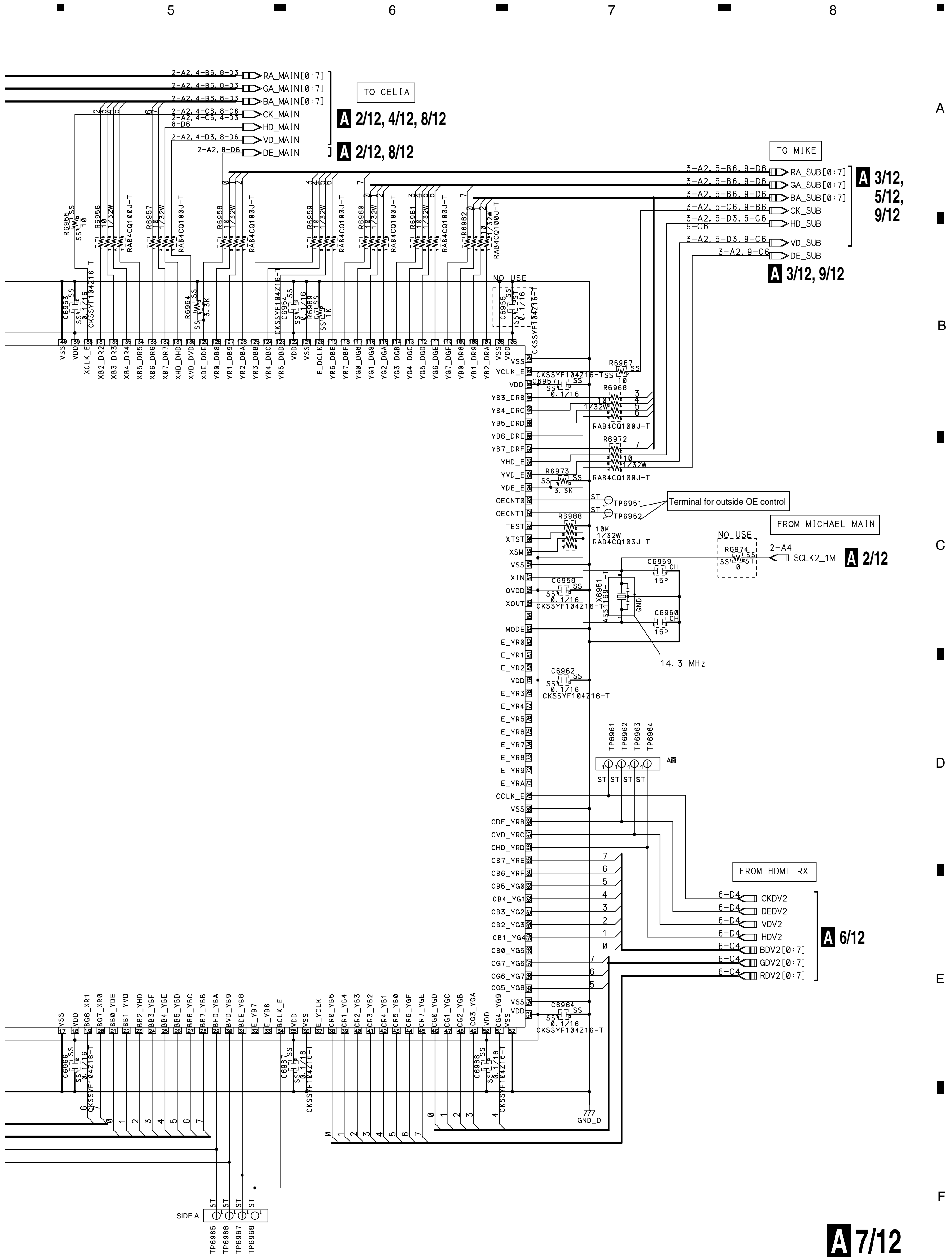
A 7/12 MR MAIN BOARD ASSY (AWZ6926)

● ROZ BLOCK



FROM MAIN UCOM
MAIN_UCOM[1:176]
A 1/12-6/12, 7/12-12/12
1-A4, 2-D4, 3-D4
4-C6, 5-C6, 6-C6
8-B6, 9-A6, 10-A6
11-C3, 12-D2, 12-C4
12-B6
RST_GCR 16
A 2/12, 3/12, 6/12, 12/12
FROM REG I/O
RESETX1
2-D4, 3-D4, 6-C6
12-B6
R6999
R6981
NO USE
N070EI
NO USE
C6969
CEHVKW101M6R3-TRB
C6951 100/6.3
V+3V_DD
C6956 0.1/16
R6965 CKSSYF104Z16-T
R6966
10 1/32W
RAB4CQ100J-T
R6971 1K
SDA_MA 147
SCL_MA 148
R6969 100
R6970 100
RN1303-TLB
Q6951
RST3 112
POW_DET 121
R6977 10K
NO USE
TP7354
TP6953
TP6954
TP6955
BS1.5SW 153
RST_DT 155
DT_DET 118
R6992 100 1/32W
RAB4CQ101J-T
TP7353 R6993 J, US, EU
R6994 100
R6995 100
RXD_DT 122
TXD_DT 123
HDMI_INT1/FMT_CHG 103
R6975
R6976
R6978
J, US, EU
TP6969
TP6970
TP6971
TP6972 - TP6987
RDT[0:7]
GDT[0:7]
BDT[0:7]
R6982 56 1/32W RAB4CQ560J-T
R6983 56 1/32W RAB4CQ560J-T
R6984 56 1/32W RAB4CQ560J-T
R6985 56 1/32W RAB4CQ560J-T
R6986 56 1/32W RAB4CQ560J-T
HDT
VDT
DEDT
CKDT
I 12/14
CN7501
CN6951
AKM1201- -TFB
GND_D
DT_FNC 24
R6945 10K RAB4CQ103J-T 1/32W
R6946 10K RAB4CQ103J-T 1/32W
GND_D
TP6956
TP6988
TP6989
TP6990
TP6991
TP6957
TP6958
TP6959
TP6960
R6987 22
US, EU
R6982-6986 RAB4CQ101J-T
C6961 0.1/16 CKSSYF104Z16-T
C6963 NO USE CKSSYF104Z16-T
C6965 0.1/16 CKSSYF104Z16-T
C6952 0.1/16 CKSSYF104Z16-T
R6954 10
R6951 10 1/32W RAB4CQ100J-T
R6952 10 1/32W RAB4CQ100J-T
R6953 10 1/32W RAB4CQ100J-T
IC6951
PD6435A
VSS
RESET
VDD
XR5_DB5
XR6_DB6
XR7_DB7
XG0_DG0
XG1_DG1
XG2_DG2
XG3_DG3
XG4_DG4
XG5_DG5
XG6_DG6
XG7_DG7
XB0_DR0
XB1_DR1
XR4_DB4
XR3_DB3
XR2_DB2
XR1_DB1
XR0_DB0
AS
SDA
SCL
E_XDE
E_XVD
E_XHD
E_XBF
E_XBE
E_XCLK
E_XBD
E_XBC
E_XBB
AR0_XBA
AR1_XB9
AR2_XB8
AR3_XB7
AR4_XB6
AR5_XB5
AR6_XB4
AR7_XB3
AG0_XB2
AG1_XB1
AG2_XB0
AG3_XGF
AG4_XGE
AG5_XGD
AG6_XGC
AG7_XGB
AB0_XGA
AB1_XG9
AB2_XG8
AB3_XG7
AB4_XG6
AB5_XG5
AB6_XG4
AB7_XG3
AHD_XG2
AVD_XG1
ADE_XG0
ACLK_E
BR0_XRF
BR1_XRE
BR2_XRD
BR3_XRC
BR4_XRB
BR5_XRA
BR6_XR9
BR7_XR8
BG0_XR7
BG1_XR6
BG2_XR5
BG3_XR4
BG4_XR3
BG5_XR2
FROM HDMI RX
RDV1_TXT[0:7] 6-B6
GDV1_TXT[0:7] 6-B6
BDV1_TXT[0:7] 6-B6
HDV1 6-B6
VDV1 6-B6
DEDV1 6-B6
CKDV1_TXT 6-B6
A 6/12

A 7/12

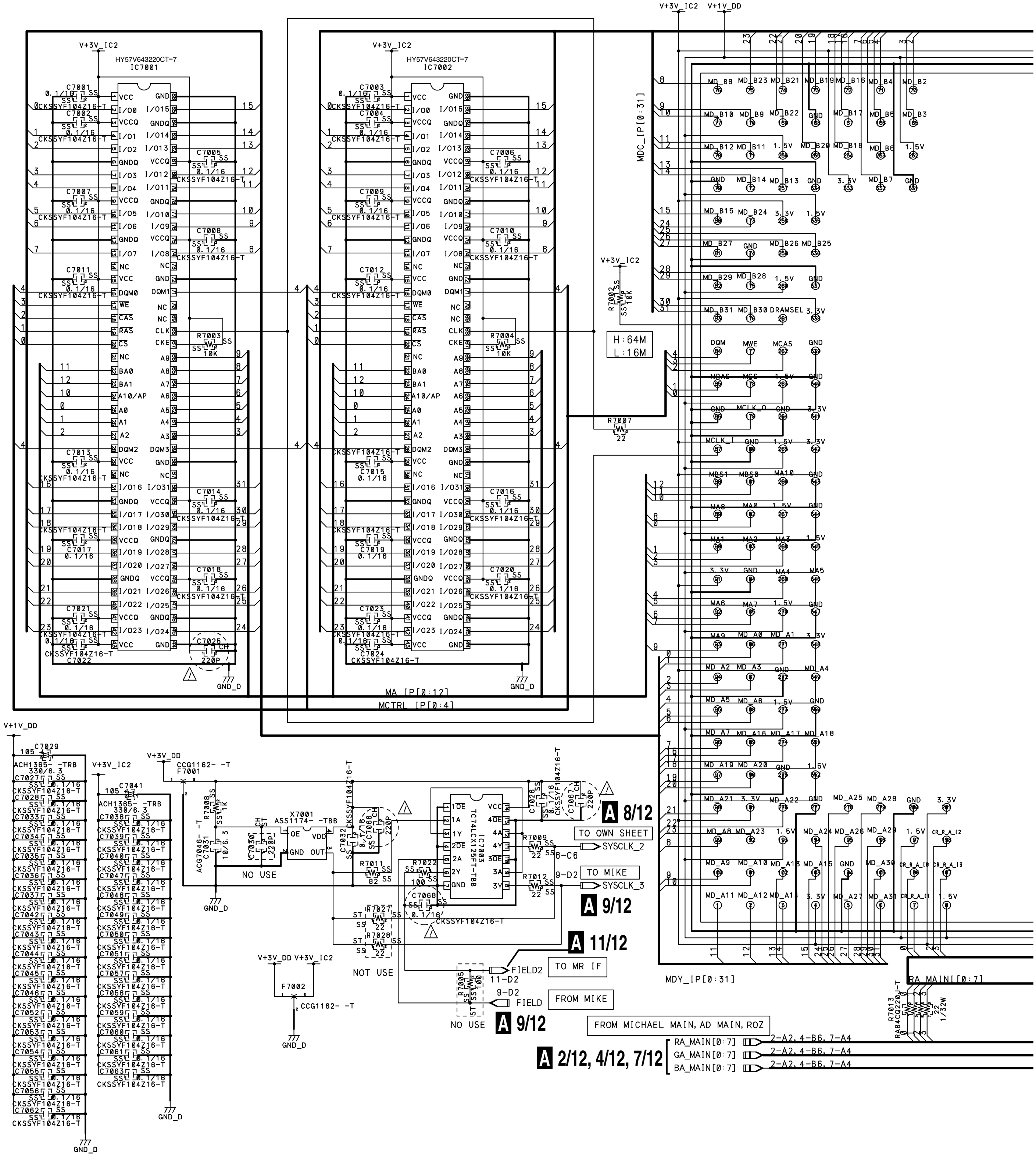

5
6
7
8
A
B
C
D
E
F
RA_MAIN[0:7]
GA_MAIN[0:7]
BA_MAIN[0:7]
CK_MAIN
HD_MAIN
VD_MAIN
DE_MAIN
TO CELIA
A 2/12, 4/12, 8/12
A 2/12, 8/12
TO MIKE
RA_SUB[0:7]
GA_SUB[0:7]
BA_SUB[0:7]
CK_SUB
HD_SUB
VD_SUB
DE_SUB
A 3/12, 5/12, 9/12
A 3/12, 9/12
R6955
R6956
R6957
R6958
R6959
R6960
R6961
R6962
RAB4CQ100J-T
C6953
C6954
C6955
R6964
R6919
NO USE
CKSSYF104Z16-T
R6967
R6968
R6972
R6973
C6957
Terminal for outside OE control
TP6951
TP6952
FROM MICHAEL MAIN
R6988
RAB4CQ103J-T
NO USE
R6974
SCLK2_1M
A 2/12
C6959
C6958
C6960
X6951
ASS1169-
14.3 MHz
C6962
TP6961
TP6962
TP6963
TP6964
A面
FROM HDMI RX
CKDV2
DEDV2
VDV2
HDV2
BDV2[0:7]
GDV2[0:7]
RDV2[0:7]
A 6/12
C6964
C6966
C6967
C6968
GND_D
SIDE A
TP6965
TP6966
TP6967
TP6968
VSS
VDD
XCLK_E
YCLK_E
E_DCLK
E_YCLK
OECNT0
OECNT1
TEST
XTST
XSM
XIN
OVDD
XOUT
MODE
CCLK_E
CDE_YRB
CVD_YRC
CHD_YRD

A 7/12

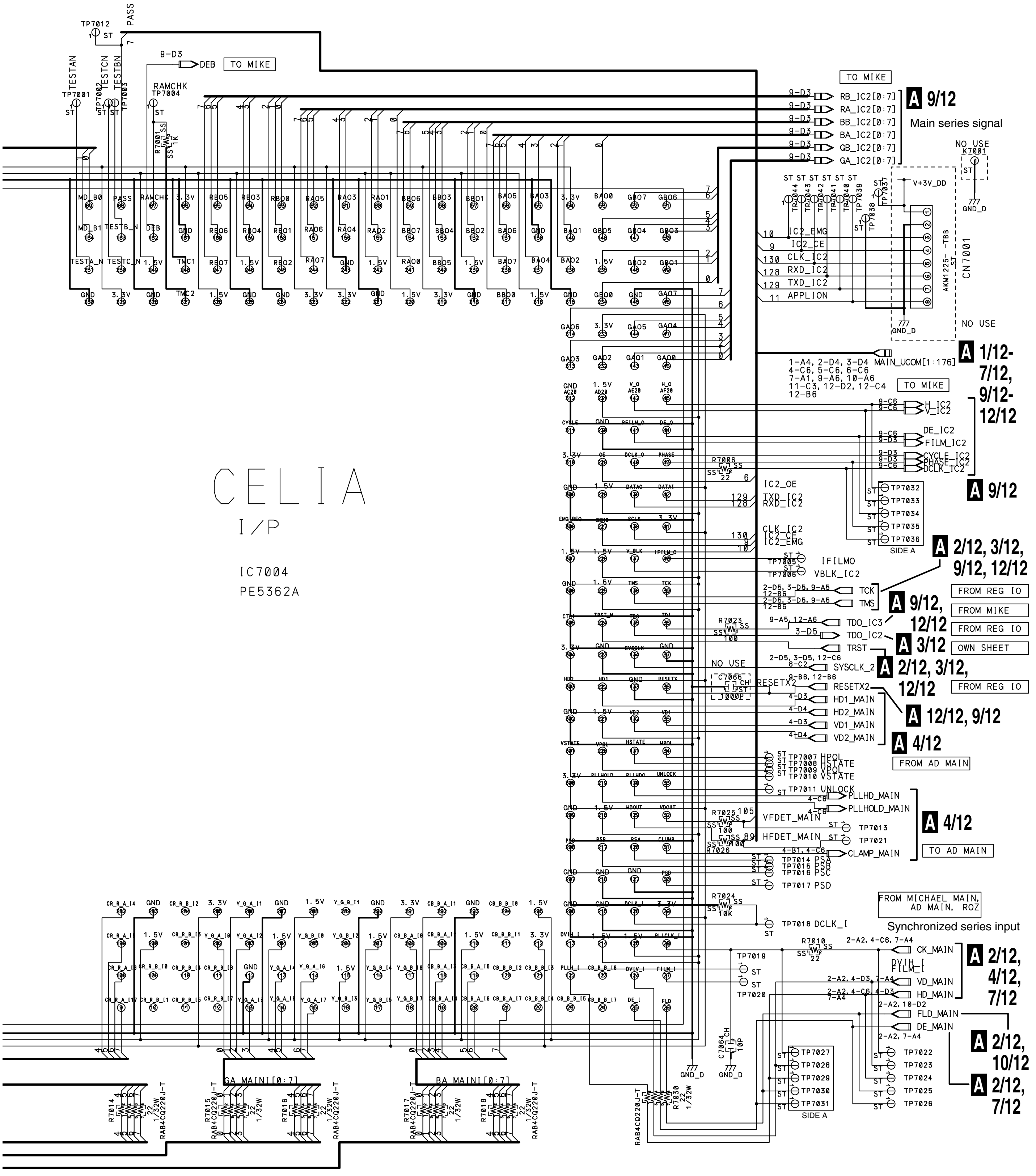
3.10 MR MAIN BOARD ASSY (8/12)

A 8/12 MR MAIN BOARD ASSY (AWZ6926)

● **CELIA BLOCK**


V+3V_IC2
HY57V643220CT-7
IC7001
IC7002
V+3V_IC2
V+1V_DD
MDC_IP[0:31]
H:64M
L:16M
R7007 22
R7003 10K
R7004 10K
R7002 10K
MA_IP[0:12]
MCTRL_IP[0:4]
MDY_IP[0:31]
RA_MAIN[0:7]
GND_D
V+1V_DD
C7029
ACH1365- -TRB 330/6.3
V+3V_DD
CCG1162- -T
F7001
X7001
ASS1174- -TBB
ACG7046- -T
C7031 10/6.3
NO USE
IC7003
TC74LCX125FT-TBB
R7009 22
R7012 22
R7011 82
R7022 100
C7068
R7027 22
R7028 22
NOT USE
F7002
CCG1162- -T
R7005 100
NO USE
A 8/12
TO OWN SHEET
SYSCLK_2
8-C6
TO MIKE
9-D2
SYSCLK_3
A 9/12
A 11/12
FIELD2
11-D2
TO MR IF
9-D2
FIELD
FROM MIKE
A 9/12
FROM MICHAEL MAIN, AD MAIN, ROZ
RA_MAIN[0:7] 2-A2, 4-B6, 7-A4
GA_MAIN[0:7] 2-A2, 4-B6, 7-A4
BA_MAIN[0:7] 2-A2, 4-B6, 7-A4
A 2/12, 4/12, 7/12
R7013
RAB4CQ220J-T
22 1/32W

A 8/12

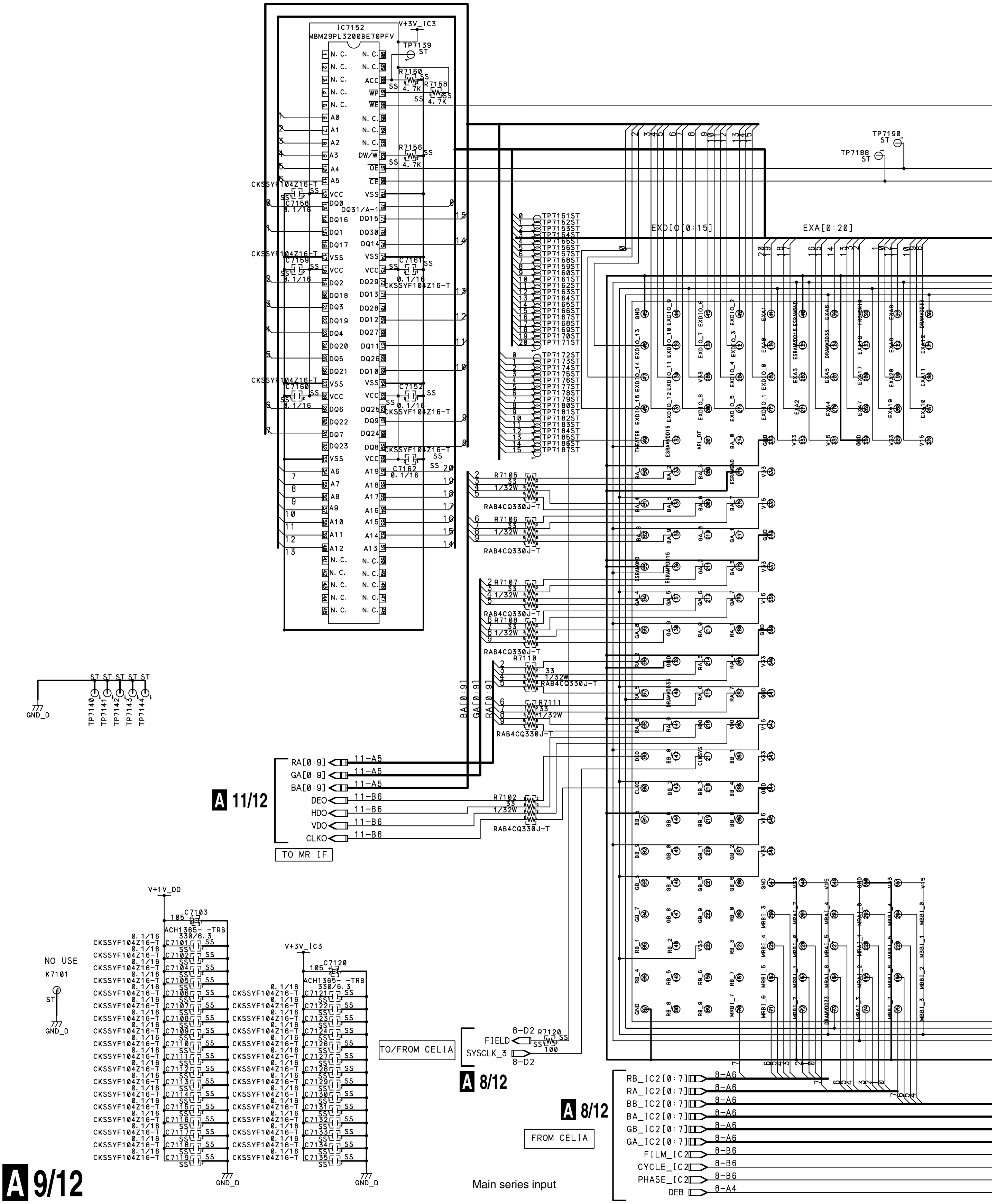

CELIA
I/P
IC7004
PE5362A
TP7012
PASS
TESTAN
TESTCN
TESTBN
TP7001
TP7002
TP7003
9-D3
DEB
TO MIKE
RAMCHK
TP7004
R7001 1K
MD_B0
PASS
RAMCHK
3.3V
RBO5
RBO3
RBO0
RAO5
RAO3
RAO1
BBO6
BBO3
BBO1
BAO5
BAO3
BAO0
GBO7
GBO6
MD_B1
TESTB_N
DEB
GND
RBO6
RBO4
RBO1
RAO6
RAO4
RAO2
BBO7
BBO4
BBO2
BAO6
BAO1
GBO5
GBO4
GBO3
TESTA_N
TESTC_N
1.5V
TMC1
RBO7
RBO2
RAO7
RAO0
BBO5
BAO7
BAO4
BAO2
GBO2
GBO1
TMC2
BBO0
GBO0
GAO7
GAO6
GAO5
GAO4
GAO3
GAO2
GAO1
GAO0
V_O
H_O
CYCLE
FILM_O
DE_O
OE
DCLK_O
PHASE
DATAO
DATAI
EMG_REQ
SENO
SCLK
V_BLK
IFILM_O
TMS
TCK
TRST_N
TRO
TDI
SYSCLK
HD2
HD1
RESETX
VD2
VD1
VSTATE
VPOL
HSTATE
HPOL
PLLHOLD
PLLHDO
UNLOCK
HDOUT
VDOUT
PSC
PSB
PSA
CLUMP
PSD
DCLK_I
DVIH_I
PLLCLK_I
DVIV_I
FILM_I
DE_I
FLD
TO MIKE
9-D3 RB_IC2[0:7]
9-D3 RA_IC2[0:7]
9-D3 BB_IC2[0:7]
9-D3 BA_IC2[0:7]
9-D3 GB_IC2[0:7]
9-D3 GA_IC2[0:7]
A 9/12
Main series signal
NO USE
K7001
GND_D
V+3V_DD
TP7044 TP7043 TP7042 TP7041 TP7040 TP7039 TP7038 TP7037
IC2_EMG
IC2_CE
CLK_IC2
RXD_IC2
TXD_IC2
APPLION
AKM1225-TBB
CN7001
NO USE
1-A4, 2-D4, 3-D4 MAIN_UCOM[1:176]
4-C6, 5-C6, 6-C6
7-A1, 9-A6, 10-A6
11-C3, 12-D2, 12-C4
12-B6
A 1/12-7/12, 9/12-12/12
TO MIKE
9-C6 H_IC2
9-C6 V_IC2
9-C6 DE_IC2
9-D3 FILM_IC2
9-D3 CYCLE_IC2
9-D3 PHASE_IC2
9-C6 DCLK_IC2
R7006 22
IC2_OE
TXD_IC2
RXD_IC2
CLK_IC2
IC2_CE
IC2_EMG
TP7032 TP7033 TP7034 TP7035 TP7036
SIDE A
A 9/12
A 2/12, 3/12, 9/12, 12/12
TP7005 IFILMO
TP7006 VBLK_IC2
2-D5, 3-D5, 9-A5 12-B6 TCK
2-D5, 3-D5, 9-A5 12-B6 TMS
FROM REG IO
FROM MIKE
R7023 100
9-A5, 12-A6 TDO_IC3
3-D5 TDO_IC2
TRST
FROM REG IO
OWN SHEET
A 9/12, 12/12
A 3/12
2-D5, 3-D5, 12-C6 8-C2 SYSCLK_2
A 2/12, 3/12, 12/12
NO USE
C7065 1000P
RESETX2
9-B6, 12-B6 RESETX2
4-D3 HD1_MAIN
4-D4 HD2_MAIN
4-D3 VD1_MAIN
4-D4 VD2_MAIN
FROM REG IO
A 12/12, 9/12
A 4/12
FROM AD MAIN
TP7007 HPOL
TP7008 HSTATE
TP7009 VPOL
TP7010 VSTATE
TP7011 UNLOCK
4-C6 PLLHD_MAIN
4-C6 PLLHOLD_MAIN
R7025 100
VFDET_MAIN
HFDET_MAIN
R7026
TP7013
TP7021
4-B1, 4-C6 CLAMP_MAIN
A 4/12
TO AD MAIN
TP7014 PSA
TP7015 PSB
TP7016 PSC
TP7017 PSD
R7024 10K
TP7018 DCLK_I
FROM MICHAEL MAIN, AD MAIN, ROZ
Synchronized series input
R7010 22
2-A2, 4-C6, 7-A4 CK_MAIN
DVIH_I
FILM_I
2-A2, 4-D3, 7-A4 VD_MAIN
2-A2, 4-C6, 7-A4 HD_MAIN
2-A2, 10-D2 FLD_MAIN
2-A2, 7-A4 DE_MAIN
A 2/12, 4/12, 7/12
A 2/12, 10/12
A 2/12, 7/12
TP7019
TP7020
TP7022 TP7023 TP7024 TP7025 TP7026
TP7027 TP7028 TP7029 TP7030 TP7031
SIDE A
C7064 10P
GND_D
R7030 RAB4CQ220J-T 22 1/32W
CR_R_A_I4 CR_R_B_I2 Y_G_A_I1 Y_G_B_I1 CB_B_A_I1 CB_B_B_I0
GA MAIN[0:7]
BA MAIN[0:7]
R7014 R7015 R7016 R7017 R7018
RAB4CQ220J-T 22 1/32W

A 8/12

3.11 MR MAIN BOARD ASSY (9/12)

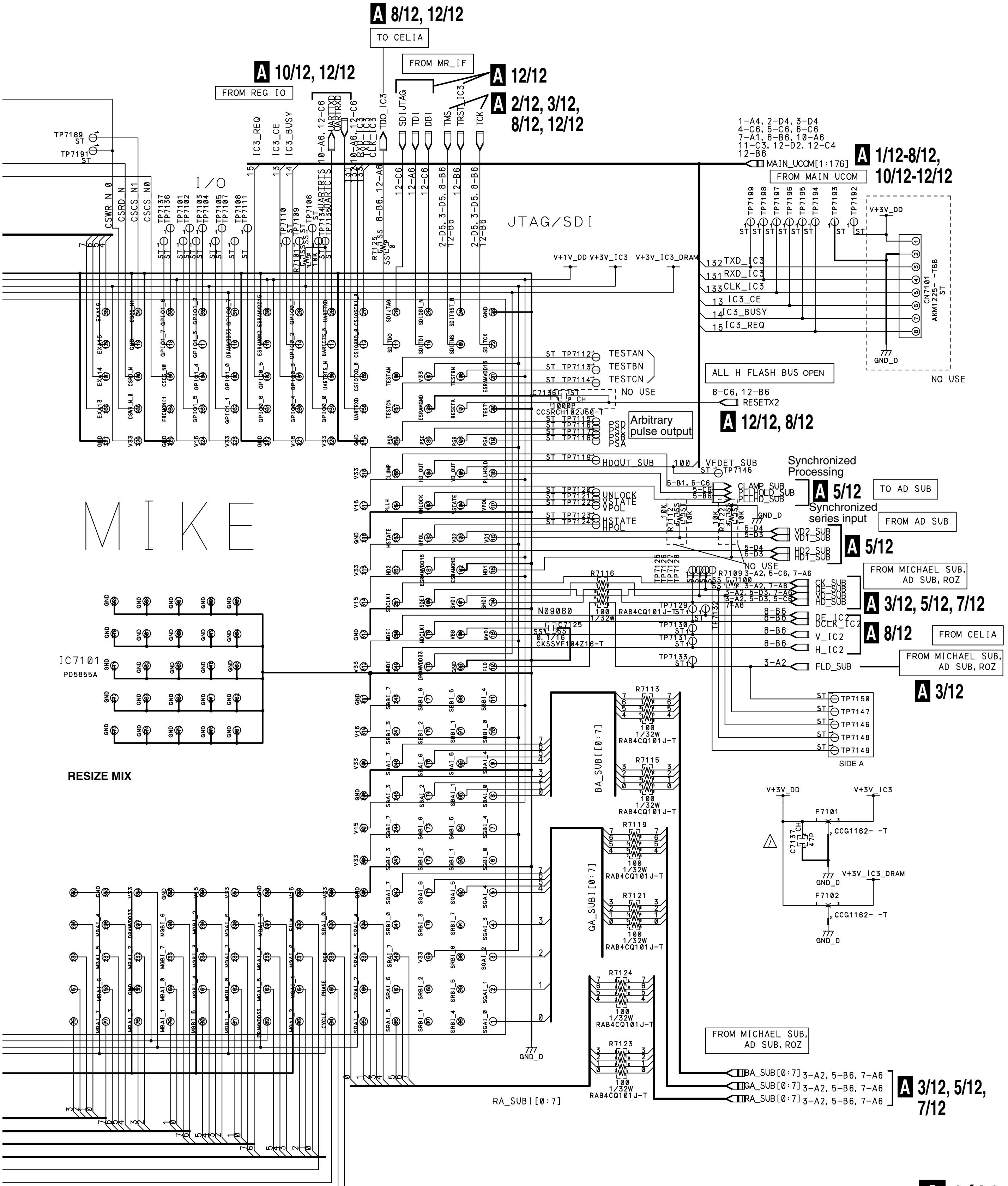
A 9/12 MR MAIN BOARD ASSY (AWZ6926)

● MIKE BLOCK



IC7152
MBM29PL3200BE70PFV
V+3V_IC3
TP7139
R7160
R7158
R7156
4.7K
CKSSYF104Z16-T
C7158
C7159
C7160
C7161
C7152
C7162
0.1/16
DQ31/A-1
TP7151ST – TP7187ST
EXDIO[0:15]
EXA[0:20]
TP7190
TP7188
R7105
R7106
R7107
R7108
R7110
R7111
R7102
33
1/32W
RAB4CQ330J-T
BA[0:9]
GA[0:9]
RA[0:9]
RA[0:9] 11-A5
GA[0:9] 11-A5
BA[0:9] 11-A5
DEO 11-B6
HDO 11-B6
VDO 11-B6
CLKO 11-B6
A 11/12
TO MR IF
TP7140
TP7141
TP7142
TP7143
TP7144
GND_D
V+1V_DD
C7103
105
ACH1365- -TRB
330/6.3
C7101 – C7119
C7120
C7121 – C7135
NO USE
K7101
FIELD 8-D2
SYSCLK_3 8-D2
R7120
100
TO/FROM CELIA
A 8/12
RB_IC2[0:7] 8-A6
RA_IC2[0:7] 8-A6
BB_IC2[0:7] 8-A6
BA_IC2[0:7] 8-A6
GB_IC2[0:7] 8-A6
GA_IC2[0:7] 8-A6
FILM_IC2 8-B6
CYCLE_IC2 8-B6
PHASE_IC2 8-B6
DEB 8-A4
FROM CELIA
Main series input

A 9/12

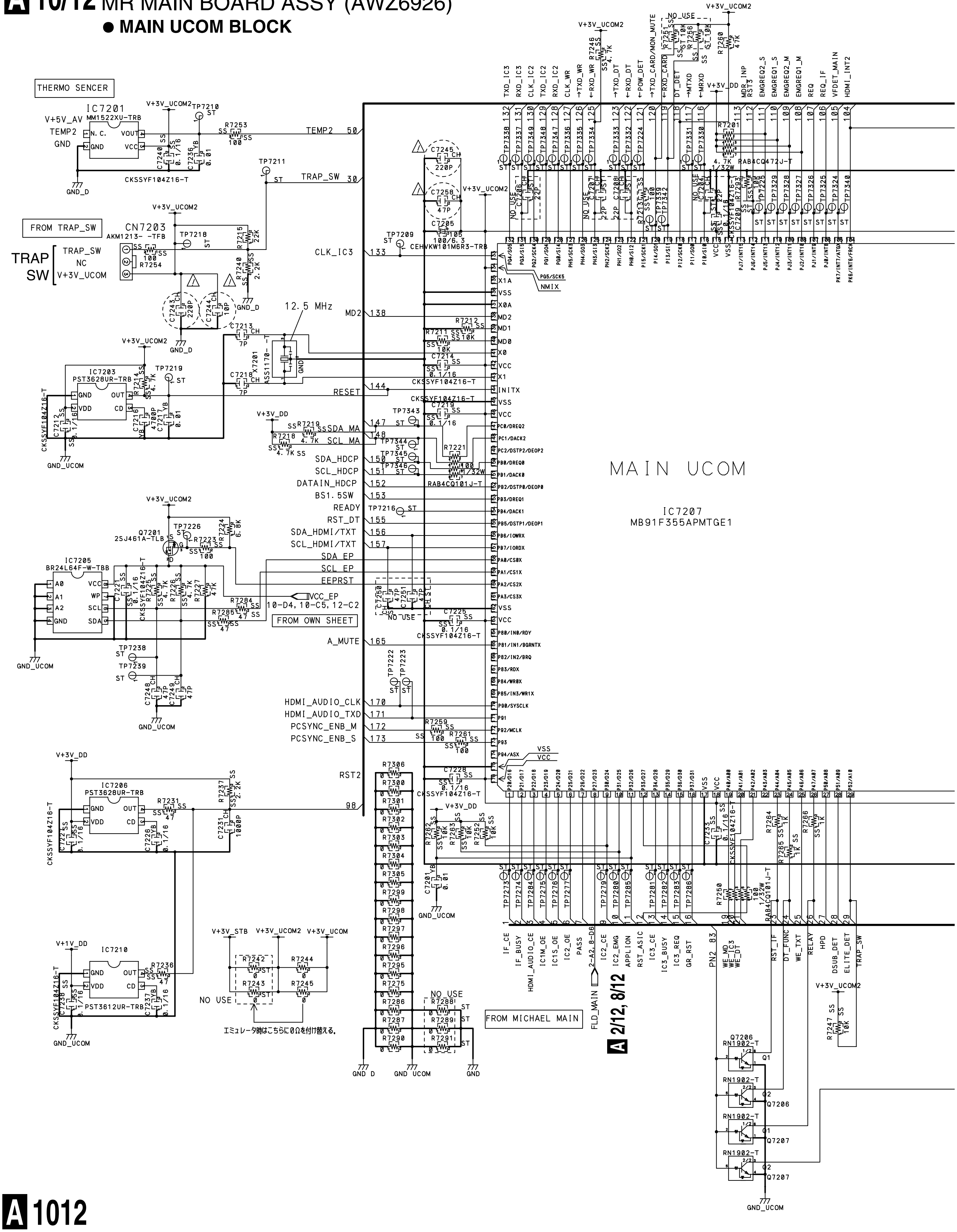

A 8/12, 12/12
TO CELIA
FROM MR_IF
A 12/12
A 10/12, 12/12
FROM REG IO
A 2/12, 3/12, 8/12, 12/12
A 1/12-8/12, 10/12-12/12
FROM MAIN UCOM
MAIN_UCOM[1:176]
1-A4, 2-D4, 3-D4
4-C6, 5-C6, 6-C6
7-A1, 8-B6, 10-A6
11-C3, 12-D2, 12-C4
12-B6
IC3_REQ
IC3_CE
IC3_BUSY
UARTTXD
UARTRXD
TDO_IC3
SDIJTAG
TDI
DBI
TMS
TRST_IC3
TCK
I/O
JTAG/SDI
CSWR_N_0
CSRD_N
CSCS_N1
CSCS_N0
TXD_IC3
RXD_IC3
CLK_IC3
IC3_CE
IC3_BUSY
IC3_REQ
CN7101
AKM1225- -TBB
V+3V_DD
GND_D
NO USE
V+1V_DD
V+3V_IC3
V+3V_IC3_DRAM
TESTAN
TESTBN
TESTCN
NO USE
ALL H FLASH BUS OPEN
RESETX2
8-C6, 12-B6
A 12/12, 8/12
PSD
PSC
PSB
PSA
Arbitrary pulse output
HDOUT_SUB
VFDET_SUB
Synchronized Processing
CLAMP_SUB
PLLHOLD_SUB
PLLHD_SUB
A 5/12
TO AD SUB
Synchronized series input
FROM AD SUB
UNLOCK
VSTATE
VPOL
HSTATE
HPOL
VD2_SUB
VD1_SUB
HD2_SUB
HD1_SUB
A 5/12
NO USE
FROM MICHAEL SUB, AD SUB, ROZ
CK_SUB
DE_SUB
VD_SUB
HD_SUB
A 3/12, 5/12, 7/12
DE_IC2
DCLK_IC2
V_IC2
H_IC2
A 8/12
FROM CELIA
FLD_SUB
FROM MICHAEL SUB, AD SUB, ROZ
A 3/12
TP7150
TP7147
TP7146
TP7148
TP7149
SIDE A
MIKE
IC7101
PD5855A
RESIZE MIX
R7116
N09080
C7125
0.1/16
CKSSYF104Z16-T
C7136
1000P
CCSRCH102J50-T
R7113
R7115
R7119
R7121
R7124
R7123
100
1/32W
RAB4CQ101J-T
BA_SUBI[0:7]
GA_SUBI[0:7]
RA_SUBI[0:7]
V+3V_DD
V+3V_IC3
F7101
CCG1162- -T
C7137
47P
V+3V_IC3_DRAM
F7102
FROM MICHAEL SUB, AD SUB, ROZ
BA_SUB[0:7]
GA_SUB[0:7]
RA_SUB[0:7]
3-A2, 5-B6, 7-A6
A 3/12, 5/12, 7/12
GND_D

A 9/12

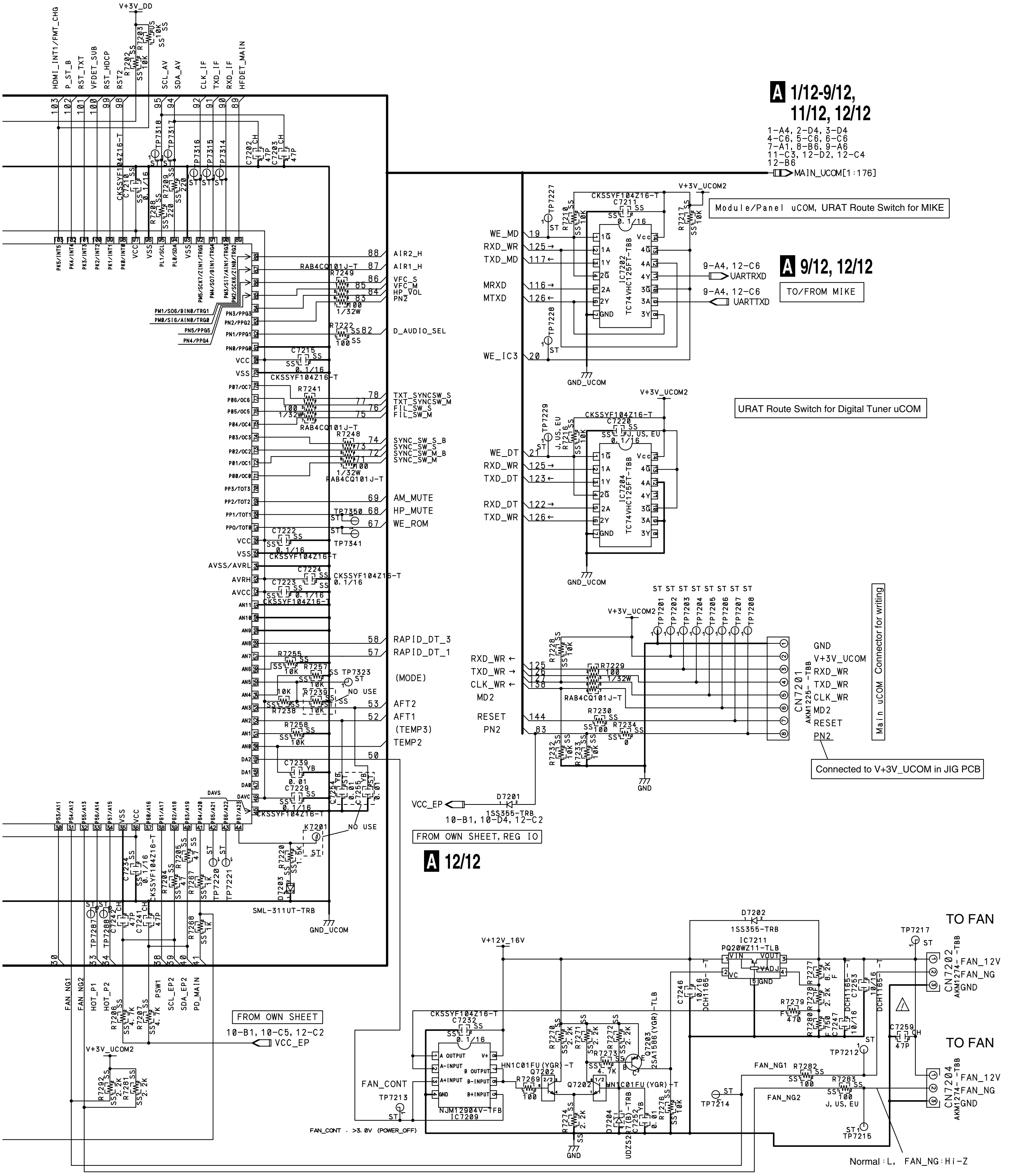
3.12 MR MAIN BOARD ASSY (10/12)

A 10/12 MR MAIN BOARD ASSY (AWZ6926)

● MAIN UCOM BLOCK


THERMO SENCER
IC7201 MM1522XU-TRB
V+5V_AV
TEMP2
GND
TEMP2 50
TRAP_SW 30
FROM TRAP_SW
CN7203 AKM1213- -TFB
TRAP SW
TRAP_SW
NC
V+3V_UCOM
CLK_IC3 133
12.5 MHz
X7201 ASS1170- -T
MD2 138
IC7203 PST3628UR-TRB
RESET 144
V+3V_UCOM2
V+3V_DD
SDA_MA 147
SCL_MA 148
SDA_HDCP 150
SCL_HDCP 151
DATAIN_HDCP 152
BS1.5SW 153
READY
RST_DT 155
SDA_HDMI/TXT 156
SCL_HDMI/TXT 157
SDA_EP
SCL_EP
EEPRST
Q7201 2SJ461A-TLB
IC7205 BR24L64F-W-TBB
VCC_EP
10-D4, 10-C5, 12-C2
FROM OWN SHEET
A_MUTE 165
HDMI_AUDIO_CLK 170
HDMI_AUDIO_TXD 171
PCSYNC_ENB_M 172
PCSYNC_ENB_S 173
RST2
98
IC7206 PST3628UR-TRB
IC7210 PST3612UR-TRB
V+1V_DD
V+3V_STB
NO USE
エミュレータ時はこちらに0Ωを付け替える。
GND_D
GND_UCOM
GND
MAIN UCOM
IC7207
MB91F355APMTGE1
TXD_IC3
RXD_IC3
CLK_IC2
TXD_IC2
RXD_IC2
CLK_WR
→TXD_WR
←RXD_WR
→TXD_DT
←RXD_DT
←POW_DET
→TXD_CARD/MON_MUTE
←RXD_CARD
DT_DET
→MTXD
←MRXD
MDR_INP
RST3
EMGREQ2_S
EMGREQ1_S
EMGREQ2_M
EMGREQ1_M
REQ
REQ_IF
VFDET_MAIN
HDMI_INT2
RAB4CQ472J-T
RAB4CQ101J-T
IF_CE
IF_BUSY
HDMI_AUDIO_CE
IC1M_OE
IC1S_OE
IC2_OE
PASS
2-A2, 8-D6
IC2_CE
IC2_EMG
APPLION
RST_ASIC
IC3_CE
IC3_BUSY
IC3_REQ
GR_RST
PN2 83
WE_MD
WE_LD
WE_DT
RST_IF
DT_FUNC
WE_TXT
RELAY
HPD
DSUB_DET
ELITE_DET
TRAP_SW
FLD_MAIN
A 2/12, 8/12
FROM MICHAEL MAIN
Q7206 RN1902-T
Q7207 RN1902-T

A 1012

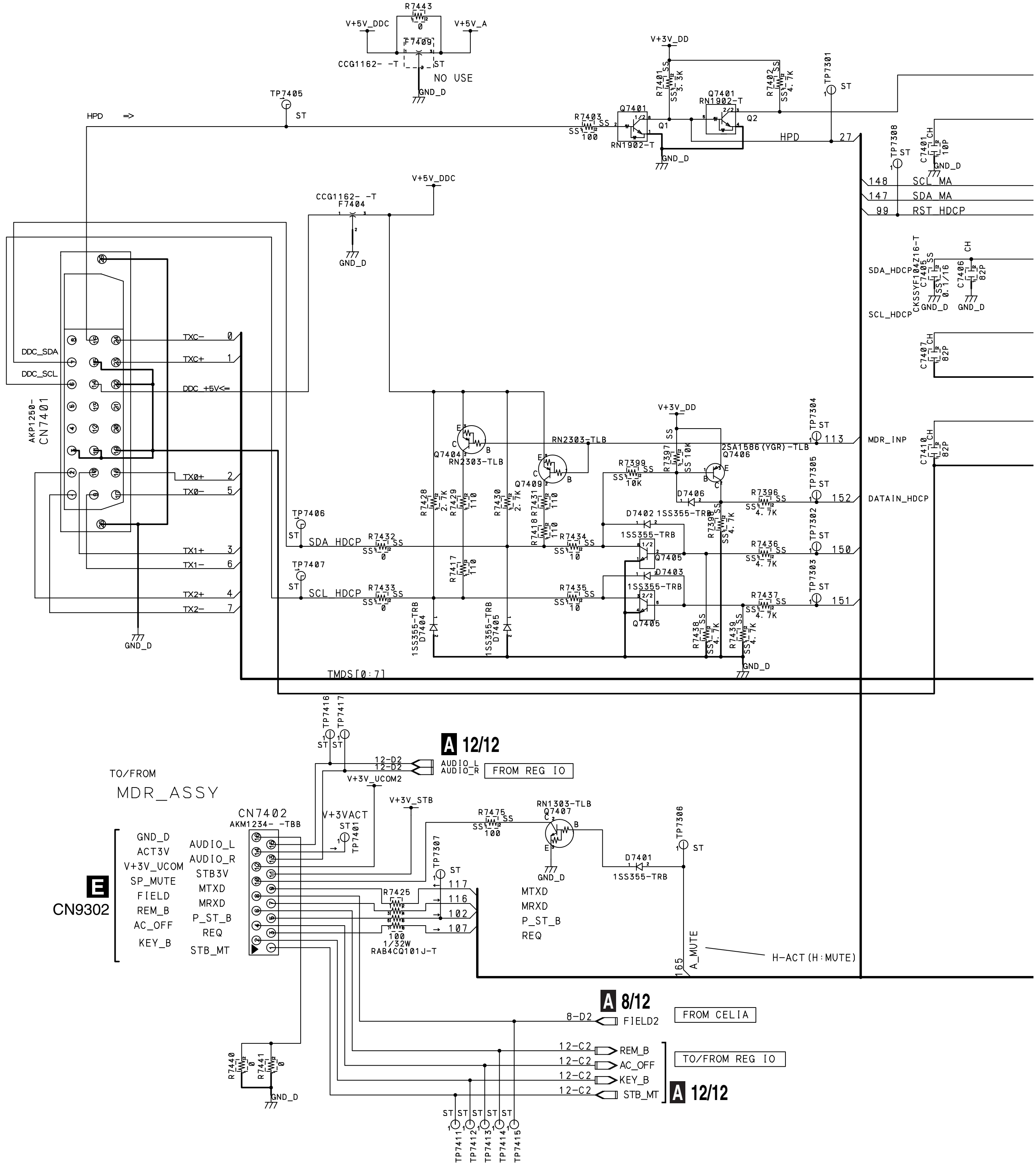

A 1/12-9/12, 11/12, 12/12
1-A4, 2-D4, 3-D4
4-C6, 5-C6, 6-C6
7-A1, 8-B6, 9-A6
11-C3, 12-D2, 12-C4
12-B6
MAIN_UCOM[1:176]
Module/Panel uCOM, URAT Route Switch for MIKE
A 9/12, 12/12
TO/FROM MIKE
9-A4, 12-C6
UARTRXD
UARTTXD
URAT Route Switch for Digital Tuner uCOM
V+3V_DD
V+3V_UCOM2
HDMI_INT1/FMT_CHG
P_ST_B
RST_TXT
VFDET_SUB
RST_HDCP
RST2
SCL_AV
SDA_AV
CLK_IF
TXD_IF
RXD_IF
HFDET_MAIN
WE_MD
RXD_WR
TXD_MD
MRXD
MTXD
WE_IC3
IC7202
TC74VHC126FT-TBB
IC7204
TC74VHC126FT-TBB
WE_DT
RXD_WR
TXD_DT
RXD_DT
TXD_WR
GND_UCOM
AIR2_H
AIR1_H
VFC_S
VFC_M
HP_VOL
PN2
D_AUDIO_SEL
TXT_SYNCSW_S
TXT_SYNCSW_M
FIL_SW_S
FIL_SW_M
SYNC_SW_S_B
SYNC_SW_S
SYNC_SW_M_B
SYNC_SW_M
AM_MUTE
HP_MUTE
WE_ROM
RAPID_DT_3
RAPID_DT_1
(MODE)
NO USE
AFT2
AFT1
(TEMP3)
TEMP2
ST ST ST ST ST ST ST ST
TP7201 TP7202 TP7203 TP7204 TP7205 TP7206 TP7207 TP7208
RXD_WR
TXD_WR
CLK_WR
MD2
RESET
PN2
CN7201
AKM1225-TBB
GND
V+3V_UCOM
RXD_WR
TXD_WR
CLK_WR
MD2
RESET
PN2
Main uCOM Connector for writing
Connected to V+3V_UCOM in JIG PCB
VCC_EP
D7201
1SS355-TRB
10-B1, 10-D4, 12-C2
FROM OWN SHEET, REG IO
A 12/12
K7201
D7203
SML-311UT-TRB
GND_UCOM
FAN_NG1
FAN_NG2
HOT_P1
HOT_P2
PSW1
SCL_EP2
SDA_EP2
PD_MAIN
FROM OWN SHEET
10-B1, 10-C5, 12-C2
VCC_EP
V+3V_UCOM2
V+12V_16V
D7202
1SS355-TRB
IC7211
PQ20WZ11-TLB
TO FAN
TP7217
CN7202
AKM1274-TBB
FAN_12V
FAN_NG
GND
IC7209
NJM12904V-TFB
FAN_CONT
TP7213
FAN_CONT : >3.0V (POWER_OFF)
Q7202
HN1C01FU(YGR)-T
Q7203
2SA1586(YGR)-TLB
D7204
UDZS2
TP7214
FAN_NG1
FAN_NG2
TP7212
TP7215
CN7204
AKM1274-TBB
FAN_12V
FAN_NG
GND
J, US, EU
Normal : L, FAN_NG : Hi-Z

A 10/12

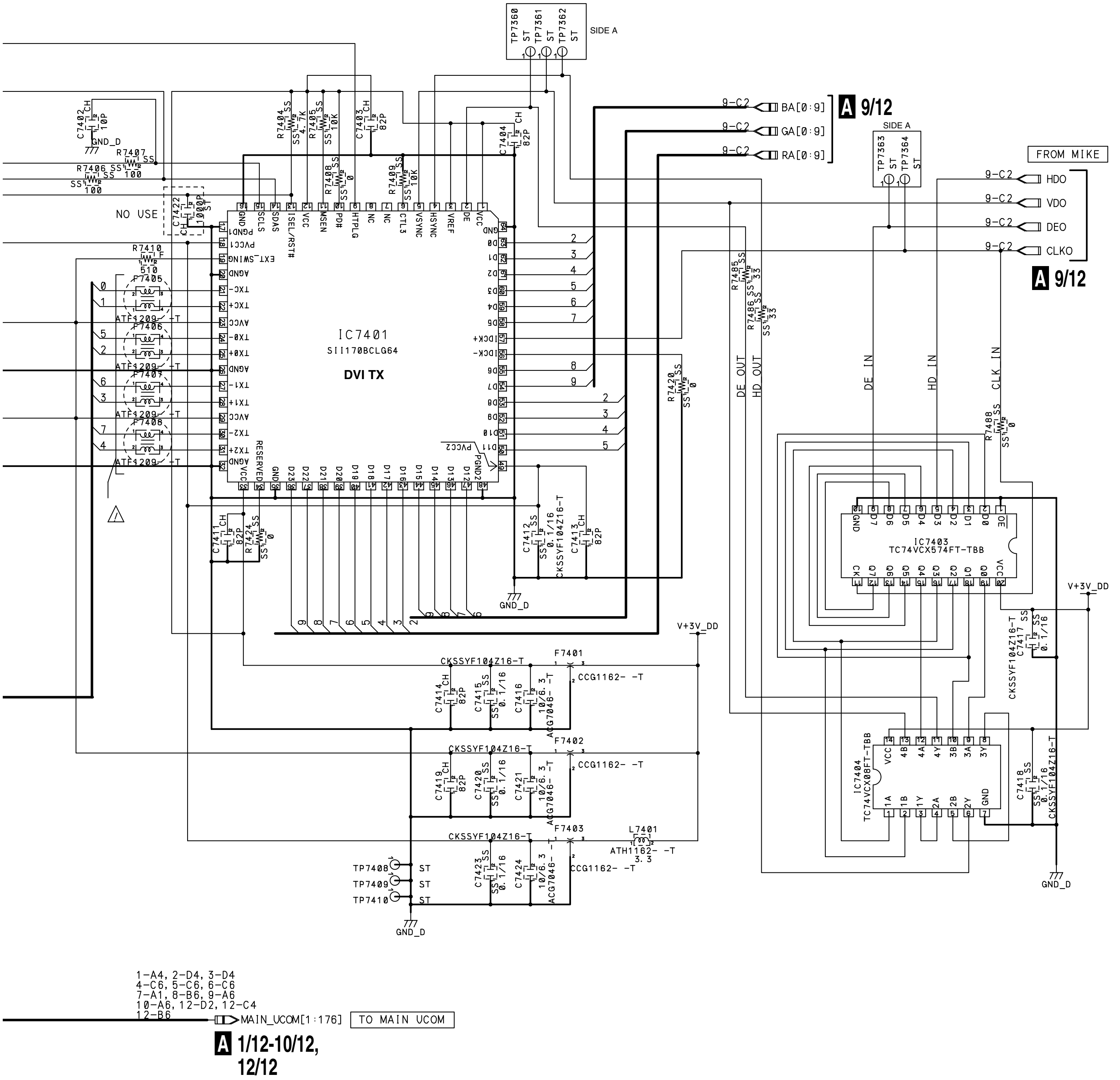
3.13 MR MAIN BOARD ASSY (11/12)

A 11/12 MR MAIN BOARD ASSY (AWZ6926)

● MR I/F BLOCK


R7443
0
V+5V_DDC
V+5V_A
F7409
CCG1162- -T
ST
NO USE
GND_D
V+3V_DD
R7401 SS 3.3K
Q7401 RN1902-T
R7402 SS 4.7K
TP7301 ST
TP7405 ST
HPD =>
R7403 SS 100
Q7401 RN1902-T
Q1
Q2
HPD
27
GND_D
TP7308 ST
C7401 CH 10P
148 SCL_MA
147 SDA_MA
99 RST_HDCP
V+5V_DDC
CCG1162- -T
F7404
SDA_HDCP
SCL_HDCP
C7405 CKSSYF104Z16-T 0.1/16
C7406 CH 82P
C7407 CH 82P
DDC_SDA
DDC_SCL
AKP1250- CN7401
TXC- 0
TXC+ 1
DDC +5V<=
TX0+ 2
TX0- 5
TX1+ 3
TX1- 6
TX2+ 4
TX2- 7
GND_D
V+3V_DD
Q7404 RN2303-TLB
Q7409 RN2303-TLB
R7399 SS 10K
R7397 SS 10K
2SA1586(YGR)-TLB Q7406
TP7304 ST 113
MDR_INP
C7410 CH 82P
R7428 2.7K
R7429 110
R7430 2.7K
R7431 110
D7406
R7396 SS 4.7K
TP7305 ST 152
DATAIN_HDCP
TP7406 ST
SDA_HDCP
R7432 SS 0
R7418 110
R7434 SS 10
D7402 1SS355-TRB
1SS355-TRB
Q7405
D7403
R7398 SS 4.7K
R7436 SS 4.7K
TP7302 ST 150
TP7407 ST
SCL_HDCP
R7433 SS 0
R7417 110
R7435 SS 10
1SS355-TRB
Q7405
R7437 SS 4.7K
TP7303 ST 151
1SS355-TRB D7404
1SS355-TRB D7405
R7438 SS 4.7K
R7439 SS 4.7K
GND_D
TMDS[0:7]
TP7416 ST
TP7417 ST
A 12/12
12-D2 AUDIO_L
12-D2 AUDIO_R
FROM REG IO
V+3V_UCOM2
TO/FROM
MDR_ASSY
CN7402
AKM1234- -TBB
V+3VACT
TP7401 ST
V+3V_STB
R7475 SS 100
RN1303-TLB Q7407
TP7306 ST
GND_D
D7401 1SS355-TRB
E
CN9302
GND_D
ACT3V
V+3V_UCOM
SP_MUTE
FIELD
REM_B
AC_OFF
KEY_B
AUDIO_L
AUDIO_R
STB3V
MTXD
MRXD
P_ST_B
REQ
STB_MT
TP7307 ST
R7425
117
116
102
107
100 1/32W
RAB4CQ101J-T
MTXD
MRXD
P_ST_B
REQ
165 A_MUTE
H-ACT(H:MUTE)
A 8/12
8-D2 FIELD2
FROM CELIA
12-C2 REM_B
12-C2 AC_OFF
12-C2 KEY_B
12-C2 STB_MT
TO/FROM REG IO
A 12/12
R7440 0
R7441 0
GND_D
TP7411
TP7412
TP7413
TP7414
TP7415

A 11/12

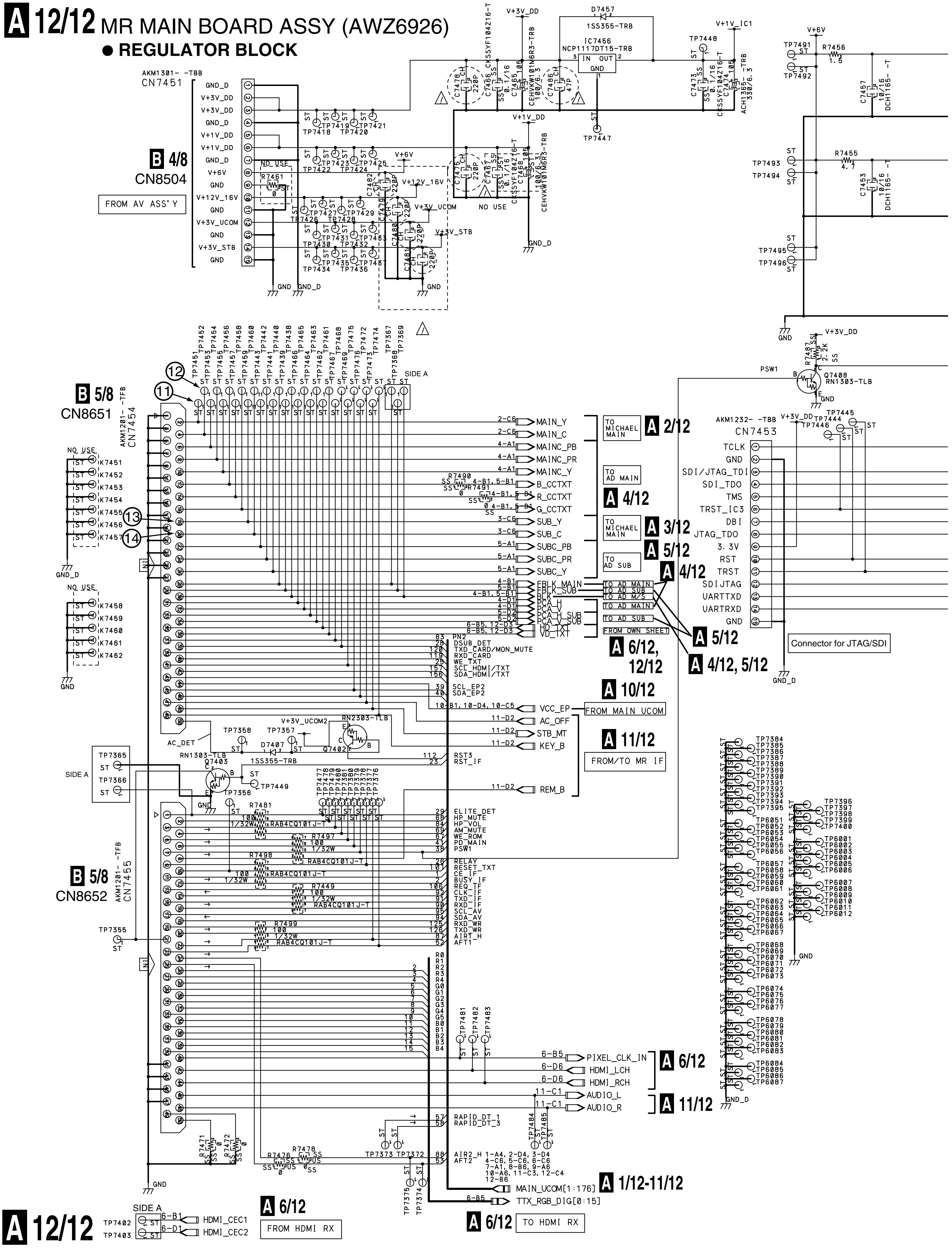

TP7360 ST
TP7361 ST
TP7362 ST
SIDE A
9-C2 BA[0:9]
9-C2 GA[0:9]
9-C2 RA[0:9]
A 9/12
SIDE A
TP7363 ST
TP7364 ST
FROM MIKE
9-C2 HDO
9-C2 VDO
9-C2 DEO
9-C2 CLKO
A 9/12
C7402 CH 10P
GND_D
R7407 SS 100
R7406 SS 100
C7422 CH 1000P
NO USE
R7404 SS 4.7K
R7405 SS 10K
C7403 CH 82P
C7404 CH 82P
R7408 SS 0
R7409 SS 10K
R7410 F 510
F7405
F7406
F7407
F7408
ATF1209- -T
IC7401
SII170BCLG64
DVI TX
GND SCLS SDAS ISEL/RST# VCC MSEN PD# HTPLG NC NC CTL3 VSYNC HSYNC VREF DE VCC
PGND1 PVCC1 EXT_SWING AGND TXC- TXC+ AVCC TX0- TX0+ AGND TX1- TX1+ AVCC TX2- TX2+ AGND
GND D0 D1 D2 D3 D4 D5 IDCK+ IDCK- D6 D7 D8 D9 D10 D11 PGND2 PVCC2
RESERVED VCC GND D23 D22 D21 D20 D19 D18 D17 D16 D15 D14 D13 D12
C7411 CH 82P
R7424 SS 0
C7412 SS 0.1/16 CKSSYF104Z16-T
C7413 CH 82P
GND_D
R7485 SS 33
R7486 SS 33
R7420 SS 0
DE OUT
HD OUT
DE IN
HD IN
CLK IN
R7488 SS 0
IC7403
TC74VCX574FT-TBB
GND D7 D6 D5 D4 D3 D2 D1 D0 OE
CK Q7 Q6 Q5 Q4 Q3 Q2 Q1 Q0 VCC
V+3V_DD
C7417 SS 0.1/16 CKSSYF104Z16-T
IC7404
TC74VCX08FT-TBB
VCC 4B 4A 4Y 3B 3A 3Y
1A 1B 1Y 2A 2B 2Y GND
C7418 SS 0.1/16 CKSSYF104Z16-T
GND_D
V+3V_DD
F7401
CKSSYF104Z16-T
CCG1162- -T
C7414 CH 82P
C7415 SS 0.1/16
C7416 10/6.3 ACG7046- -T
F7402
CKSSYF104Z16-T
CCG1162- -T
C7419 CH 82P
C7420 SS 0.1/16
C7421 10/6.3 ACG7046- -T
F7403
CKSSYF104Z16-T
L7401
ATH1162- -T
3.3
CCG1162- -T
C7423 SS 0.1/16
C7424 10/6.3 ACG7046- -T
TP7408 ST
TP7409 ST
TP7410 ST
GND_D
1-A4, 2-D4, 3-D4
4-C6, 5-C6, 6-C6
7-A1, 8-B6, 9-A6
10-A6, 12-D2, 12-C4
12-B6
MAIN_UCOM[1:176]
TO MAIN UCOM
A 1/12-10/12,
12/12

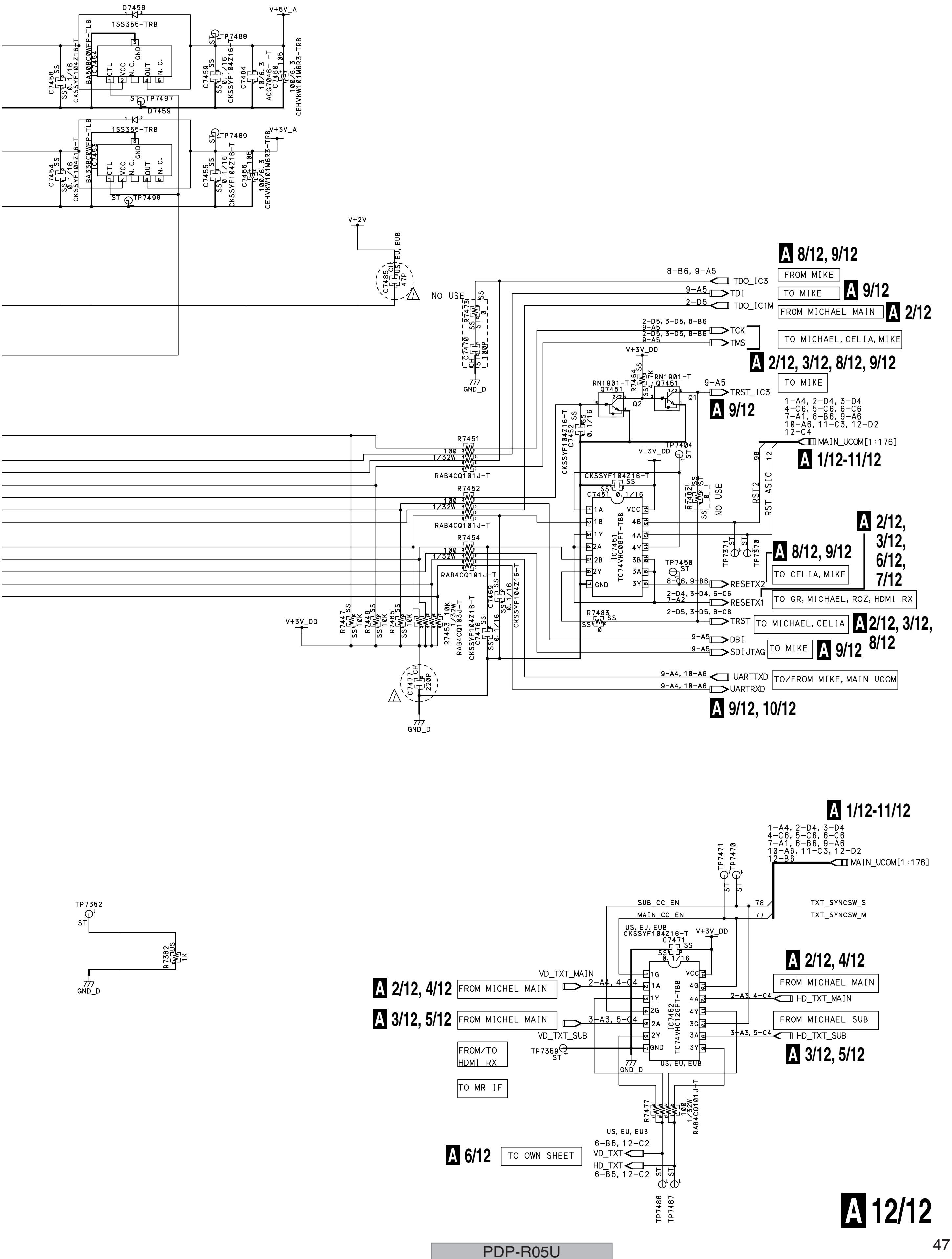
A 11/12

3.14 MR MAIN BOARD ASSY (12/12)

A 12/12 MR MAIN BOARD ASSY (AWZ6926)

● REGULATOR BLOCK


AKM1301- -TBB
CN7451
GND_D
V+3V_DD
V+3V_DD
GND_D
V+1V_DD
V+1V_DD
GND_D
V+6V
GND
V+12V_16V
GND
V+3V_UCOM
GND
V+3V_STB
GND
B 4/8
CN8504
FROM AV ASS'Y
NO USE
R7461
V+3V_DD
D7457
1SS355-TRB
IC7456
NCP1117DT15-TRB
IN OUT
GND
V+1V_IC1
TP7448
V+1V_DD
TP7447
V+6V
V+12V_16V
V+3V_UCOM
V+3V_STB
NO USE
GND_D
GND
TP7491
TP7492
R7456
1.5
TP7493
TP7494
R7455
4.7
C7457
C7453
DCH1165- -T
TP7495
TP7496
V+3V_DD
R7487
2.2K
PSW1
Q7408
RN1303-TLB
B 5/8
CN8651
AKM1201- -TFB
CN7454
SIDE A
NO USE
K7451
K7452
K7453
K7454
K7455
K7456
K7457
⑪
⑫
⑬
⑭
GND_D
K7458
K7459
K7460
K7461
K7462
GND
MAIN_Y
MAIN_C
MAINC_PB
MAINC_PR
MAINC_Y
B_CCTXT
R_CCTXT
G_CCTXT
SUB_Y
SUB_C
SUBC_PB
SUBC_PR
SUBC_Y
FBLK_MAIN
FBLK_SUB
BLK
DCA_H
DCA_V
DCA_H_SUB
DCA_V_SUB
HD_TXT
VD_TXT
TO MICHAEL MAIN
A 2/12
TO AD MAIN
A 4/12
TO MICHAEL MAIN
A 3/12
A 5/12
TO AD SUB
A 4/12
TO AD MAIN
TO AD SUB
TO AD M/S
TO AD MAIN
TO AD SUB
FROM OWN SHEET
A 5/12
A 6/12, 12/12
A 4/12, 5/12
PN2
DSUB_DET
TXD_CARD/MON_MUTE
RXD_CARD
WE_TXT
SCL_HDMI/TXT
SDA_HDMI/TXT
SCL_EP2
SDA_EP2
VCC_EP
FROM MAIN UCOM
A 10/12
AC_OFF
STB_MT
KEY_B
A 11/12
FROM/TO MR IF
RST3
RST_IF
REM_B
AKM1232- -TBB
CN7453
TCLK
GND
SDI/JTAG_TDI
SDI_TDO
TMS
TRST_IC3
DBI
JTAG_TDO
3.3V
RST
TRST
SDIJTAG
UARTTXD
UARTRXD
GND
TP7444
TP7445
TP7446
Connector for JTAG/SDI
GND_D
AC_DET
V+3V_UCOM2
RN2303-TLB
Q7402
TP7358
TP7357
D7407
1SS355-TRB
TP7365
TP7366
SIDE A
RN1303-TLB
Q7403
TP7356
TP7449
R7481
RAB4CQ101J-T
R7497
R7498
R7449
R7499
100
1/32W
B 5/8
CN8652
AKM1201- -TFB
CN7455
TP7355
ELITE_DET
HP_MUTE
HP_VOL
AM_MUTE
WE_ROM
PD_MAIN
PSW1
RELAY
RESET_TXT
CE_IF
BUSY_IF
REQ_IF
CLK_IF
TXD_IF
RXD_IF
SCL_AV
SDA_AV
RXD_WR
TXD_WR
AIR1_H
AFT1
R0 R1 R2 R3 R4 G0 G1 G2 G3 G4 G5 B0 B1 B2 B3 B4
TP7481
TP7482
TP7483
PIXEL_CLK_IN
HDMI_LCH
HDMI_RCH
A 6/12
AUDIO_L
AUDIO_R
A 11/12
RAPID_DT_1
RAPID_DT_3
TP7484
TP7485
AIR2_H
AFT2
TP7373
TP7372
R7471
R7472
R7476
R7478
MAIN_UCOM[1:176]
A 1/12-11/12
TTX_RGB_DIG[0:15]
TP7375
TP7374
A 6/12
TO HDMI RX
SIDE A
TP7402
TP7403
HDMI_CEC1
HDMI_CEC2
A 6/12
FROM HDMI RX
GND
A 12/12

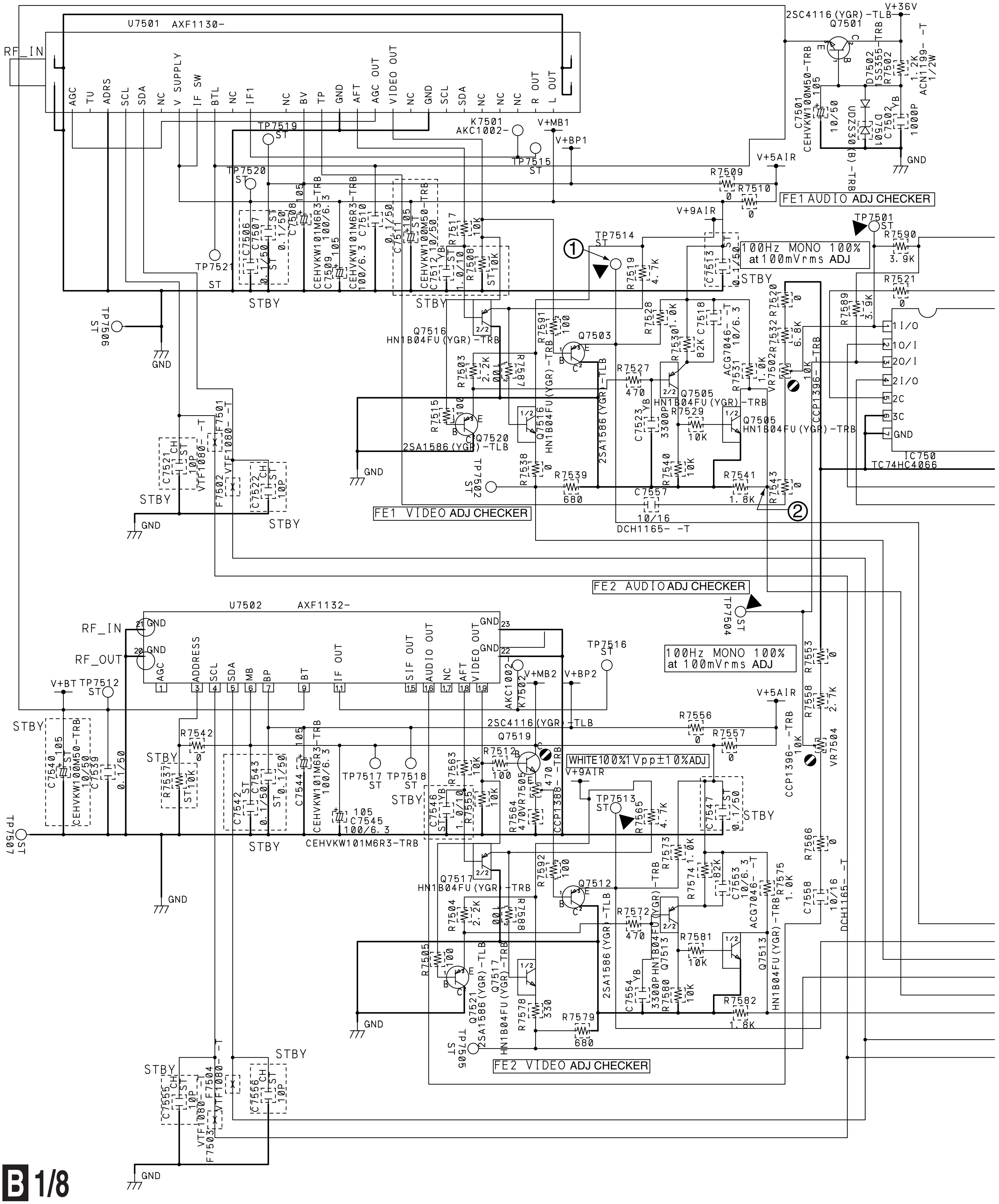


D7458
1SS355-TRB
BA50BC0WFP-TLB
IC7454
CTL
VCC
N.C.
GND
OUT
N.C.
C7458
CKSSYF104Z16-T
TP7488
V+5V_A
C7459
C7484
C7460
ACG7046-T
CEHVKW101M6R3-TRB
TP7497
D7459
BA33BC0WFP-TLB
IC7453
TP7489
V+3V_A
C7454
C7455
C7456
TP7498
V+2V
C7485
47P
US, EU, EUB
NO USE
R7473
C7470
100P
GND_D
8-B6, 9-A5
TDO_IC3
9-A5
TDI
2-D5
TDO_IC1M
2-D5, 3-D5, 8-B6
TCK
TMS
A 8/12, 9/12
FROM MIKE
TO MIKE
A 9/12
FROM MICHAEL MAIN
A 2/12
TO MICHAEL, CELIA, MIKE
A 2/12, 3/12, 8/12, 9/12
V+3V_DD
R7464
4.7K
RN1901-T
Q7451
Q2
Q1
TRST_IC3
A 9/12
TO MIKE
1-A4, 2-D4, 3-D4
4-C6, 5-C6, 6-C6
7-A1, 8-B6, 9-A6
10-A6, 11-C3, 12-D2
12-C4
MAIN_UCOM[1:176]
A 1/12-11/12
98
12
RST2
RST_ASIC
C7452
CKSSYF104Z16-T
TP7404
R7451
100
1/32W
RAB4CQ101J-T
R7452
R7454
C7451
0.1/16
IC7451
TC74VHC08FT-TBB
1A
1B
1Y
2A
2B
2Y
GND
VCC
4B
4A
4Y
3B
3A
3Y
R7482
NO USE
TP7371
TP7370
A 2/12, 3/12, 6/12, 7/12
A 8/12, 9/12
TO CELIA, MIKE
TP7450
8-C6, 9-B6
RESETX2
2-D4, 3-D4, 6-C6
7-A2
RESETX1
TO GR, MICHAEL, ROZ, HDMI RX
R7483
2-D5, 3-D5, 8-C6
TRST
TO MICHAEL, CELIA
A 2/12, 3/12, 8/12
DBI
SDIJTAG
TO MIKE
A 9/12
V+3V_DD
R7447
R7448
R7465
10K
R7453
RAB4CQ103J-T
C7476
C7469
C7477
220P
9-A4, 10-A6
UARTTXD
UARTRXD
TO/FROM MIKE, MAIN UCOM
A 9/12, 10/12
A 1/12-11/12
1-A4, 2-D4, 3-D4
4-C6, 5-C6, 6-C6
7-A1, 8-B6, 9-A6
10-A6, 11-C3, 12-D2
12-B6
MAIN_UCOM[1:176]
TP7471
TP7470
SUB_CC_EN
MAIN_CC_EN
78
77
TXT_SYNCSW_S
TXT_SYNCSW_M
TP7352
R7382
1K
US, EU, EUB
CKSSYF104Z16-T
C7471
V+3V_DD
IC7452
TC74VHC126FT-TBB
1G
1A
1Y
2G
2A
2Y
GND
VCC
4G
4A
4Y
3G
3A
3Y
A 2/12, 4/12
FROM MICHAEL MAIN
2-A3, 4-C4
HD_TXT_MAIN
VD_TXT_MAIN
A 2/12, 4/12
FROM MICHEL MAIN
2-A4, 4-C4
A 3/12, 5/12
FROM MICHEL MAIN
3-A3, 5-C4
VD_TXT_SUB
FROM MICHAEL SUB
3-A3, 5-C4
HD_TXT_SUB
A 3/12, 5/12
FROM/TO HDMI RX
TO MR IF
TP7359
R7477
RAB4CQ101J-T
6-B5, 12-C2
VD_TXT
HD_TXT
A 6/12
TO OWN SHEET
TP7486
TP7487
A 12/12

3.15 AV BOARD ASSY (1/8)

B 1/8 AV BOARD ASSY (PDP-R05U : AWZ6978) (PRO-R05U : AWZ6979)

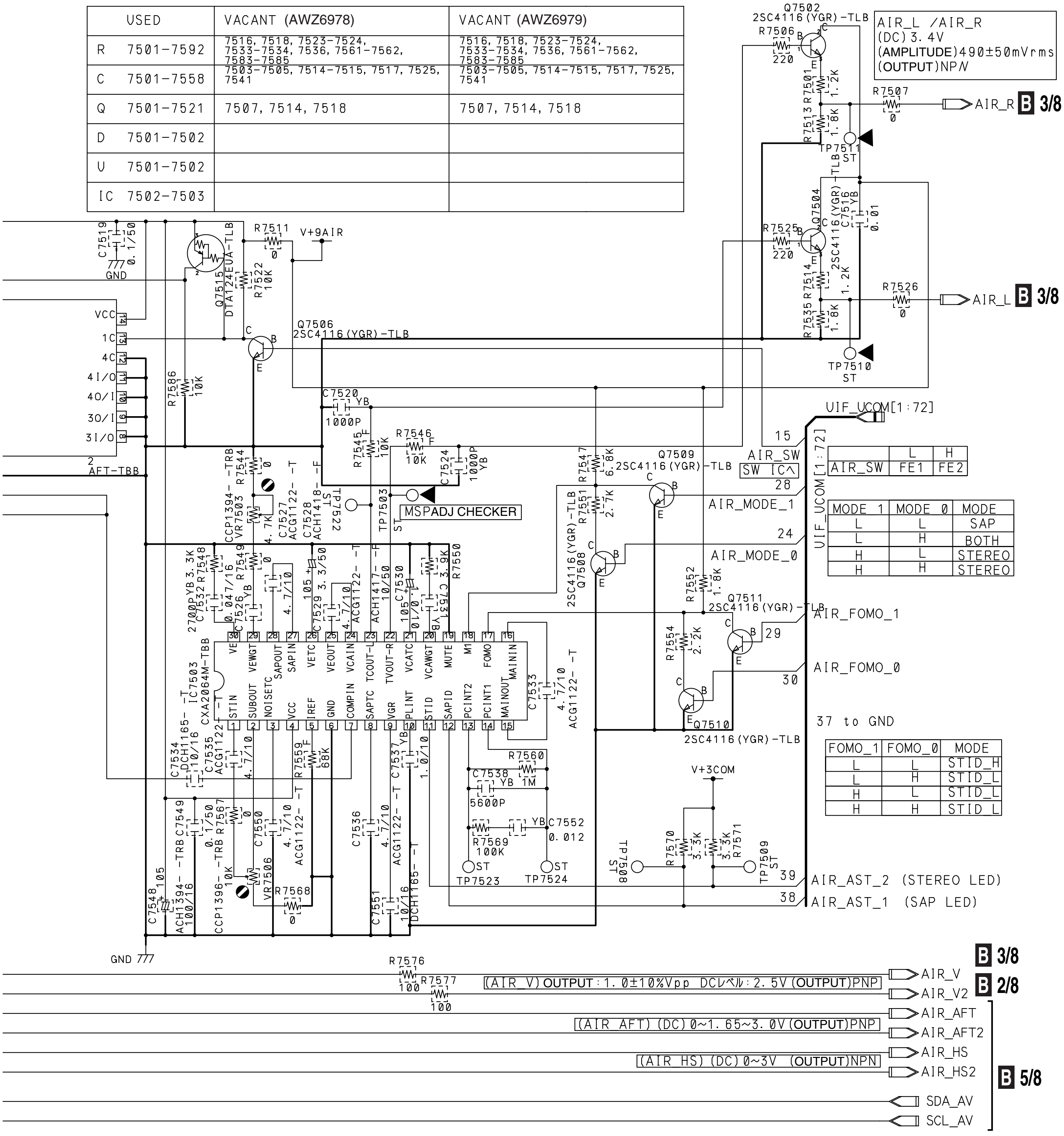
● TUNER BLOCK



A
B
C
D
E
F
U7501 AXF1130-
RF_IN
AGC
TU
ADRS
SCL
SDA
NC
V SUPPLY
IF SW
BTL
IF1
BV
TP
GND
AFT
AGC OUT
VIDEO OUT
R OUT
L OUT
2SC4116(YGR)-TLB
Q7501
V+36V
CEHVKW100M50-TRB
C7501
10/50
105
D7502
1SS355-TRB
R7502
1.2K
ACN1199- -T
1/2W
UDZS30(B)-TRB
D7501
C7502
YB
1000P
GND
K7501
AKC1002-
V+MB1
V+BP1
TP7519
TP7515
TP7520
TP7521
TP7506
V+5AIR
R7509
R7510
FE1 AUDIO ADJ CHECKER
V+9AIR
TP7501
R7590
3.9K
TP7514
100Hz MONO 100% at 100mVrms ADJ
①
R7519
4.7K
C7513
STBY
R7521
R7589
C7506
C7507
C7508
C7509
C7510
C7511
C7512
CEHVKW101M6R3-TRB
100/6.3
R7517
10K
R7508
Q7516
HN1B04FU(YGR)-TRB
R7591
Q7503
R7503
2.2K
R7587
R7515
100
Q7520
2SA1586(YGR)-TLB
R7527
470
R7528
1.0K
R7530
82K
C7518
ACG7046- -T
10/6.3
R7531
R7532
6.8K
VR7502
CCP1396- -TRB
Q7505
HN1B04FU(YGR)-TRB
C7523
3300P
R7529
10K
R7520
1I/O
1O/I
2O/I
2I/O
2C
3C
GND
IC750
TC74HC4066
TP7502
R7538
R7539
680
R7540
10K
C7557
10/16
DCH1165- -T
R7541
1.8K
R7543
②
FE1 VIDEO ADJ CHECKER
C7521
C7522
10P
F7501
VTF1080- -T
F7502
VTF1060- -T
FE2 AUDIO ADJ CHECKER
TP7504
U7502 AXF1132-
RF_IN
RF_OUT
ADDRESS
MB
BP
BT
IF OUT
SIF OUT
AUDIO OUT
AFT
VIDEO OUT
TP7516
100Hz MONO 100% at 100mVrms ADJ
R7553
R7558
2.7K
VR7504
V+BT
TP7512
K7502
AKC1002-
V+MB2
V+BP2
V+5AIR
R7556
R7557
2SC4116(YGR)-TLB
Q7519
R7512
WHITE100%1Vpp±10%ADJ
VR7505
CCP1388-
V+9AIR
TP7513
R7565
C7547
R7542
R7537
C7540
C7539
CEHVKW100M50-TRB
C7542
C7543
C7544
C7545
C7546
TP7517
TP7518
R7563
R7555
R7564
470
TP7507
Q7517
HN1B04FU(YGR)-TRB
R7592
Q7512
R7504
R7588
R7505
Q7521
2SA1586(YGR)-TLB
R7572
Q7513
R7573
R7574
R7575
C7553
R7566
C7558
DCH1165- -T
R7581
R7580
C7554
R7578
330
R7579
680
R7582
1.8K
TP7505
FE2 VIDEO ADJ CHECKER
C7555
C7556
F7503
F7504
VTF1080- -T

B 1/8

USED	VACANT (AWZ6978)	VACANT (AWZ6979)
R 7501-7592	7516, 7518, 7523-7524, 7533-7534, 7536, 7561-7562, 7583-7585	7516, 7518, 7523-7524, 7533-7534, 7536, 7561-7562, 7583-7585
C 7501-7558	7503-7505, 7514-7515, 7517, 7525, 7541	7503-7505, 7514-7515, 7517, 7525, 7541
Q 7501-7521	7507, 7514, 7518	7507, 7514, 7518
D 7501-7502		
U 7501-7502		
IC 7502-7503		


Q7502
2SC4116(YGR)-TLB
R7506 220
R7501 1.2K
R7513 1.8K
R7507 0
AIR_R B 3/8
TP7511 ST
Q7504 2SC4116(YGR)-TLB
C7516 YB 0.01
R7525 220
R7514 1.2K
R7535 1.8K
R7526 0
AIR_L B 3/8
TP7510 ST
C7519 0.1/50
GND
Q7515 DTA124EUA-TLB
R7511 0
V+9AIR
R7522 10K
VCC 14
1C 13
4C 12
4I/O 11
4O/I 10
3O/I 9
3I/O 8
R7586 10K
2 AFT-TBB
Q7506 2SC4116(YGR)-TLB
C7520 YB 1000P
R7545 10K
R7546 F 10K
C7524 1000P YB
CCP1394- -TRB VR7503 4.7K
R7544 0
C7527 ACG1122- -T
C7528 ACH1418- -F
TP7522 ST
TP7503 ST
MSPADJ CHECKER
R7547 6.8K
R7551 2.7K
Q7508 2SC4116(YGR)-TLB
Q7509 2SC4116(YGR)-TLB
UIF_UCOM[1:72]
15 AIR_SW SW IC^
28 AIR_MODE_1
24 AIR_MODE_0
R7552 1.8K
Q7511 2SC4116(YGR)-TLB
29 AIR_FOMO_1
R7554 2.2K
30 AIR_FOMO_0
Q7510 2SC4116(YGR)-TLB
37 to GND
2700P YB 3.3K C7532 R7548
C7526 YB 0.047/16
R7549 0
4.7/10
105 + C7529 3.3/50
4.7/10 ACG1122- -T
ACH1417- -F 10/50
105 C7530 0/10
C7531 YB
3.9K R7550
IC7503 CXA2064M-TBB
VE VEWGT SAPOUT SAPIN VETC VEOUT VCAIN TCOUT-L TVOUT-R VCATC VCAWGT MUTE M1 FOMO MAININ
STIN SUBOUT NOISETC VCC IREF GND COMPIN SAPTC VGR PLINT STID SAPID PCINT2 PCINT1 MAINOUT
C7533 4.7/10 ACG1122- -T
C7534 DCH1165- -T 10/16
C7535 ACG1122- -T 4.7/10
R7559 F 68K
C7537 YB 1.0/10
R7560 1M
C7538 YB 5600P
R7569 100K
C7552 YB 0.012
TP7523 ST
TP7524 ST
C7549 0.1/50 CCP1396- -TRB
R7567 0
10K VR7506
C7550 4.7/10 ACG1122- -T
R7568 0
C7536 4.7/10 ACG1122- -T
C7551 10/16 DCH1165- -T
C7548 105 ACH1394- -TRB 100/16
GND
V+3COM
R7570 3.3K
R7571 3.3K
TP7508 ST
TP7509 ST
39 AIR_AST_2 (STEREO LED)
38 AIR_AST_1 (SAP LED)
R7576 100
R7577 100
B 3/8
B 2/8
AIR_V
AIR_V2
AIR_AFT
AIR_AFT2
AIR_HS
AIR_HS2
SDA_AV
SCL_AV
B 5/8

AIR_L /AIR_R
(DC) 3.4V
(AMPLITUDE) 490±50mVrms
(OUTPUT) NPN

	L	H
AIR_SW	FE1	FE2

MODE 1	MODE 0	MODE
L	L	SAP
L	H	BOTH
H	L	STEREO
H	H	STEREO

FOMO_1	FOMO_0	MODE
L	L	STID_H
L	H	STID_L
H	L	STID_L
H	H	STID_L

(AIR_V) OUTPUT：1.0±10%Vpp DCレベル：2.5V (OUTPUT) PNP

(AIR_AFT) (DC) 0~1.65~3.0V (OUTPUT) PNP

(AIR_HS) (DC) 0~3V (OUTPUT) NPN

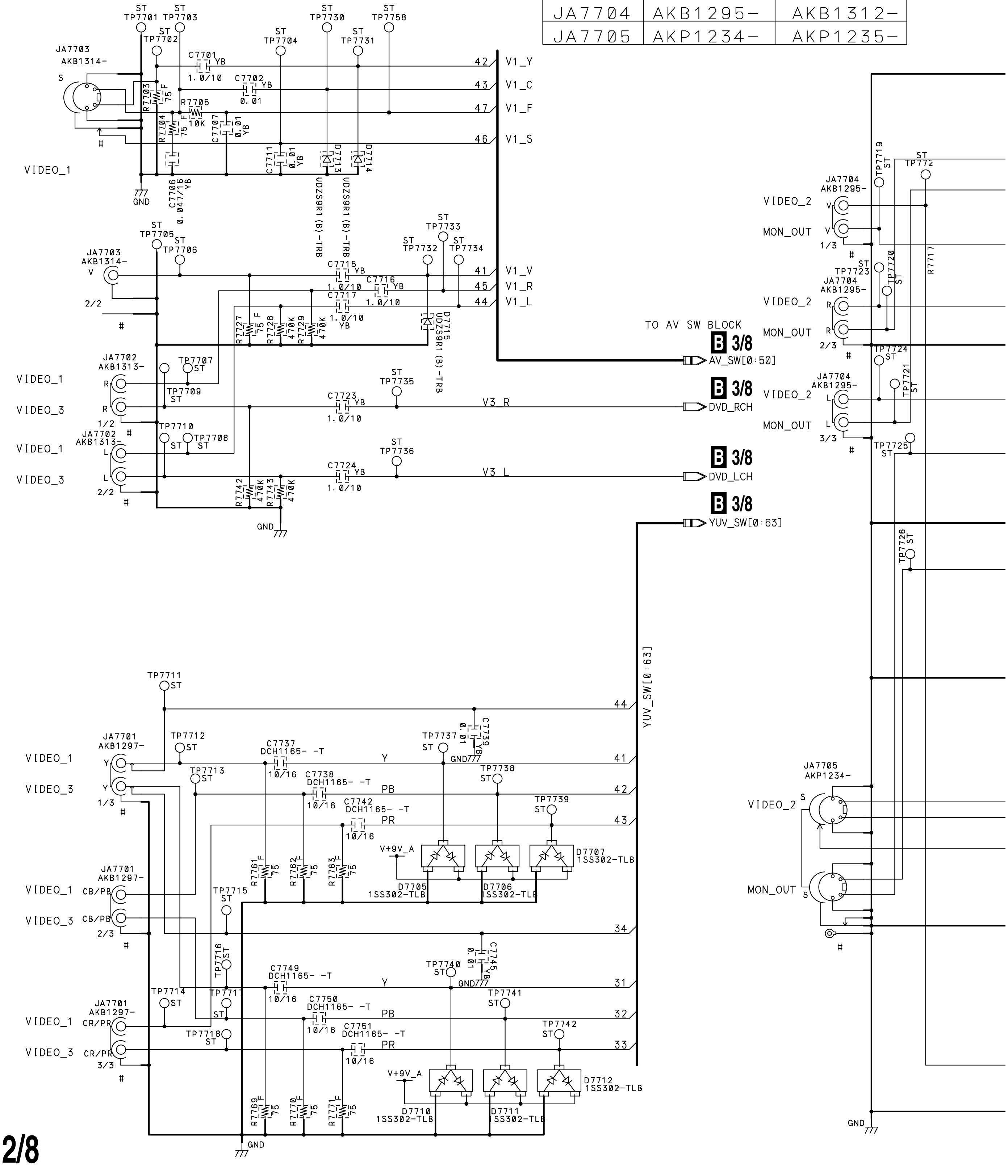
B 1/8

3.16 AV BOARD ASSY (2/8)

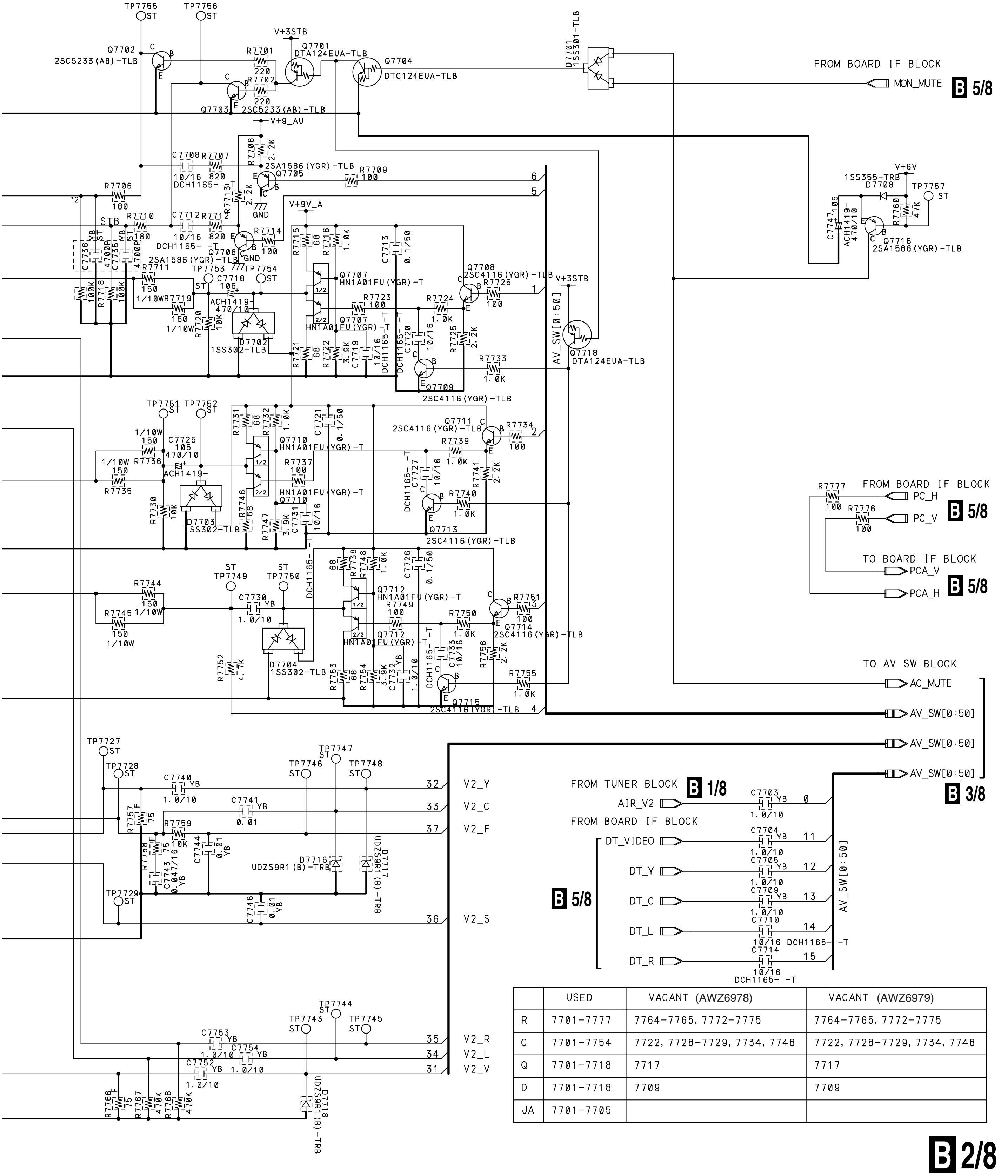
B 2/8 AV BOARD ASSY (PDP-R05U : AWZ6978) (PRO-R05U : AWZ6979)

- **AV IO BLOCK**

	AWZ6978	AWZ6979
JA7701	AKB1297-	AKB1298-
JA7702	AKB1313-	AKB1302-
JA7703	AKB1314-	AKB1309-
JA7704	AKB1295-	AKB1312-
JA7705	AKP1234-	AKP1235-



ST TP7701
ST TP7703
ST TP7702
ST TP7704
ST TP7730
ST TP7731
ST TP7758
JA7703 AKB1314-
S
C7701 YB 1.0/10
C7702 YB 0.01
R7703 75 F
R7705 10K
R7704 75 F
C7707 0.01 YB
C7711 0.01 YB
D7713
D7714
UDZS9R1(B)-TRB
UDZS9R1(B)-TRB
C7706 0.047/16 YB
GND
VIDEO_1
42 V1_Y
43 V1_C
47 V1_F
46 V1_S
ST TP7705
ST TP7706
JA7703 AKB1314-
V
2/2
ST TP7733
ST TP7732
ST TP7734
C7715 YB 1.0/10
C7716 YB 1.0/10
C7717 YB 1.0/10
41 V1_V
45 V1_R
44 V1_L
R7727 75 F
R7728 470K
R7729 470K
D7715 UDZS9R1(B)-TRB
TO AV SW BLOCK
B 3/8
AV_SW[0:50]
JA7702 AKB1313-
TP7707 ST
TP7709 ST
VIDEO_1 R
VIDEO_3 R
1/2
ST TP7735
C7723 YB 1.0/10
V3_R
B 3/8
DVD_RCH
JA7702 AKB1313-
TP7710 ST
TP7708 ST
VIDEO_1 L
VIDEO_3 L
2/2
ST TP7736
C7724 YB 1.0/10
V3_L
R7742 470K
R7743 470K
GND
B 3/8
DVD_LCH
B 3/8
YUV_SW[0:63]
ST TP7719
ST TP772
JA7704 AKB1295-
VIDEO_2 V
MON_OUT V
1/3
ST TP7723
ST TP7720
R7717
JA7704 AKB1295-
VIDEO_2 R
MON_OUT R
2/3
TP7724 ST
JA7704 AKB1295-
TP7721 ST
VIDEO_2 L
MON_OUT L
3/3
TP7725 ST
TP7726 ST
YUV_SW[0:63]
TP7711 ST
44
C7739 0.01 YB
JA7701 AKB1297-
TP7712 ST
TP7713 ST
VIDEO_1 Y
VIDEO_3 Y
1/3
C7737 DCH1165- -T 10/16
TP7737 ST
GND
Y 41
C7738 DCH1165- -T 10/16
TP7738 ST
PB 42
C7742 DCH1165- -T 10/16
TP7739 ST
PR 43
V+9V_A
D7707 1SS302-TLB
R7761 75 F
R7762 75 F
R7763 75 F
D7705 1SS302-TLB
D7706 1SS302-TLB
JA7701 AKB1297-
VIDEO_1 CB/PB
VIDEO_3 CB/PB
2/3
TP7715 ST
34
C7745 0.01 YB
TP7716 ST
C7749 DCH1165- -T 10/16
TP7740 ST
GND
Y 31
TP7714 ST
TP7717 ST
JA7701 AKB1297-
VIDEO_1 CR/PR
VIDEO_3 CR/PR
3/3
C7750 DCH1165- -T 10/16
TP7741 ST
PB 32
TP7718 ST
C7751 DCH1165- -T 10/16
TP7742 ST
PR 33
V+9V_A
D7712 1SS302-TLB
R7769 75 F
R7770 75 F
R7771 75 F
D7710 1SS302-TLB
D7711 1SS302-TLB
GND
JA7705 AKP1234-
VIDEO_2 S
MON_OUT S
GND
B 2/8


TP7755 ST
TP7756 ST
Q7702 2SC5233(AB)-TLB
V+3STB
R7701 220
Q7701 DTA124EUA-TLB
Q7704 DTC124EUA-TLB
R7702 220
Q7703 2SC5233(AB)-TLB
V+9_AU
R7708 2.2K
D7701 1SS301-TLB
FROM BOARD IF BLOCK
MON_MUTE
B 5/8
C7708 10/16 DCH1165-
R7707 820
2SA1586(YGR)-TLB Q7705
R7709 100
R7713 2.2K
GND
R7706 180
R7710 180
STB
C7712 10/16 DCH1165- -T
R7712 820
Q7706 2SA1586(YGR)-TLB
R7714 100
V+9V_A
R7715 68
R7716 1.0K
C7713 0.1/50
C7736 4700P YB
C7735 4700P YB
R7718 100K
R7717 100K
R7711 150 1/10W
R7719 150 1/10W
TP7753 ST
TP7754 ST
C7718 105 ACH1419- 470/10
R7720 10K
D7702 1SS302-TLB
Q7707 HN1A01FU(YGR)-T
R7723 100
Q7708 2SC4116(YGR)-TLB
R7726 100
R7724 1.0K
C7720 10/16 DCH1165- -T
R7725 2.2K
R7721 68
R7722 3.9K
C7719 10/16 DCH1165- -T
R7733 1.0K
Q7709 2SC4116(YGR)-TLB
AV_SW[0:50]
Q7718 DTA124EUA-TLB
V+3STB
V+6V
1SS355-TRB D7708
TP7757 ST
C7747 105 ACH1419- 470/10
R7760 47K
Q7716 2SA1586(YGR)-TLB
TP7751 ST
TP7752 ST
R7736 150 1/10W
C7725 105 470/10 ACH1419-
R7735 150 1/10W
R7731 68
R7732 1.0K
C7721 0.1/50
Q7710 HN1A01FU(YGR)-T
R7737 100
Q7711 2SC4116(YGR)-TLB
R7734 100
R7739 1.0K
C7727 10/16 DCH1165- -T
R7741 2.2K
R7740 1.0K
Q7713 2SC4116(YGR)-TLB
R7730 10K
D7703 1SS302-TLB
R7746 68
R7747 3.9K
C7731 10/16 DCH1165-
FROM BOARD IF BLOCK
PC_H
PC_V
R7777 100
R7776 100
B 5/8
TO BOARD IF BLOCK
PCA_V
PCA_H
B 5/8
R7744 150 1/10W
R7745 150 1/10W
TP7749 ST
TP7750 ST
C7730 1.0/10 YB
D7704 1SS302-TLB
R7752 4.7K
R7738 68
R7748 1.0K
C7726 0.1/50
Q7712 HN1A01FU(YGR)-T
R7749 100
R7751 100
R7750 1.0K
Q7714 2SC4116(YGR)-TLB
C7733 10/16 DCH1165- -T
R7756 2.2K
R7753 68
R7754 3.9K
C7732 1.0/10 YB
R7755 1.0K
Q7715 2SC4116(YGR)-TLB
TO AV SW BLOCK
AC_MUTE
AV_SW[0:50]
AV_SW[0:50]
AV_SW[0:50]
B 3/8
TP7727 ST
TP7728 ST
C7740 1.0/10 YB
TP7747 ST
TP7746 ST
TP7748 ST
C7741 0.01 YB
R7757 75 F
R7759 10K
R7758 75 F
C7743 0.047/16 YB
C7744 0.01 YB
D7716 UDZS9R1(B)-TRB
D7717 UDZS9R1(B)-TRB
TP7729 ST
C7746 0.01 YB
32 V2_Y
33 V2_C
37 V2_F
36 V2_S
FROM TUNER BLOCK
B 1/8
AIR_V2
C7703 1.0/10 YB
FROM BOARD IF BLOCK
DT_VIDEO
C7704 1.0/10 YB
DT_Y
C7705 1.0/10 YB
DT_C
C7709 1.0/10 YB
DT_L
C7710 10/16 DCH1165- -T
DT_R
C7714 10/16 DCH1165- -T
B 5/8
0 11 12 13 14 15
AV_SW[0:50]
TP7744 ST
TP7743 ST
TP7745 ST
C7753 1.0/10 YB
C7754 1.0/10 YB
C7752 1.0/10 YB
35 V2_R
34 V2_L
31 V2_V
R7766 75 F
R7767 470K
R7768 470K
D7718 UDZS9R1(B)-TRB

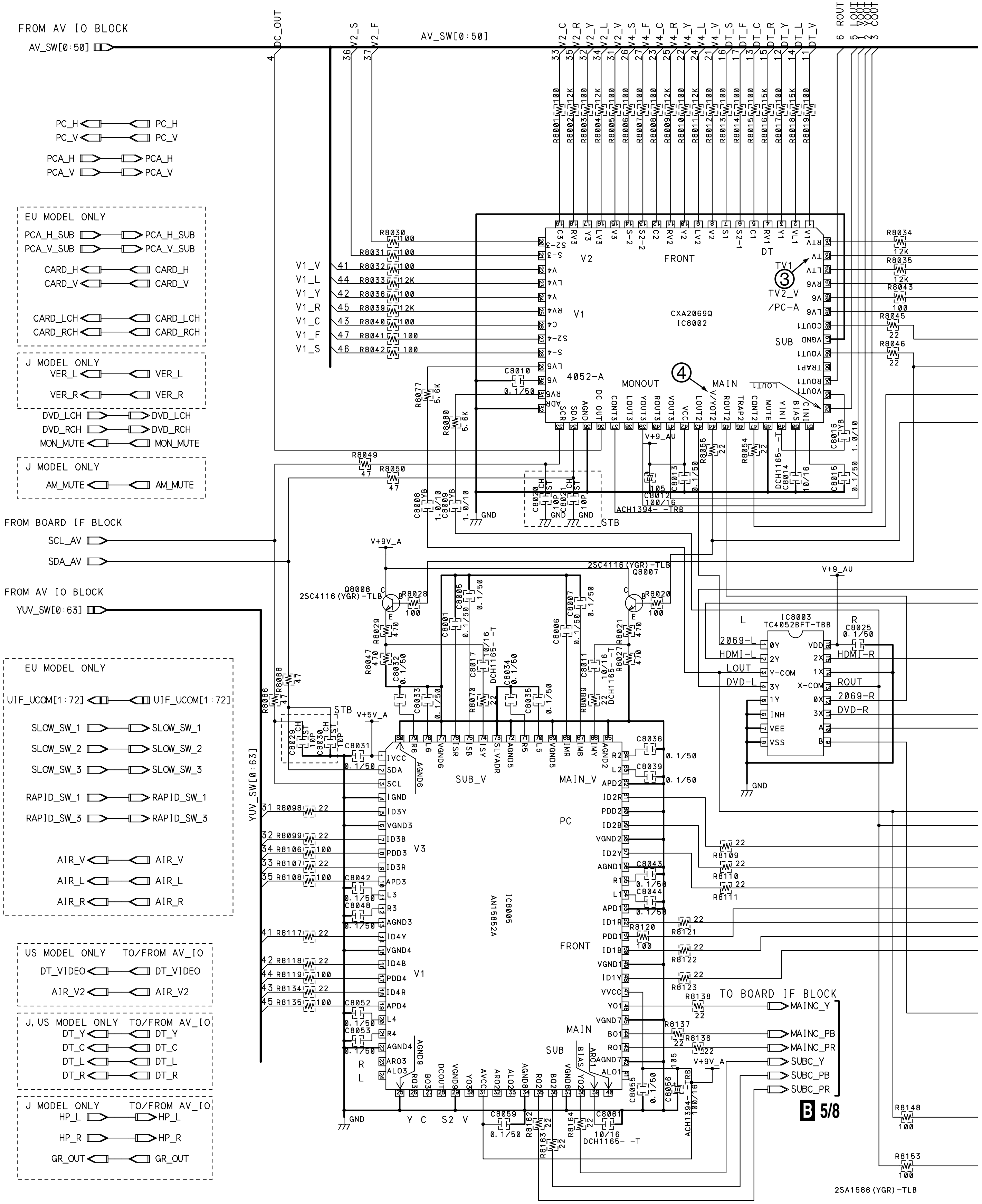
	USED	VACANT (AWZ6978)	VACANT (AWZ6979)
R	7701-7777	7764-7765, 7772-7775	7764-7765, 7772-7775
C	7701-7754	7722, 7728-7729, 7734, 7748	7722, 7728-7729, 7734, 7748
Q	7701-7718	7717	7717
D	7701-7718	7709	7709
JA	7701-7705		

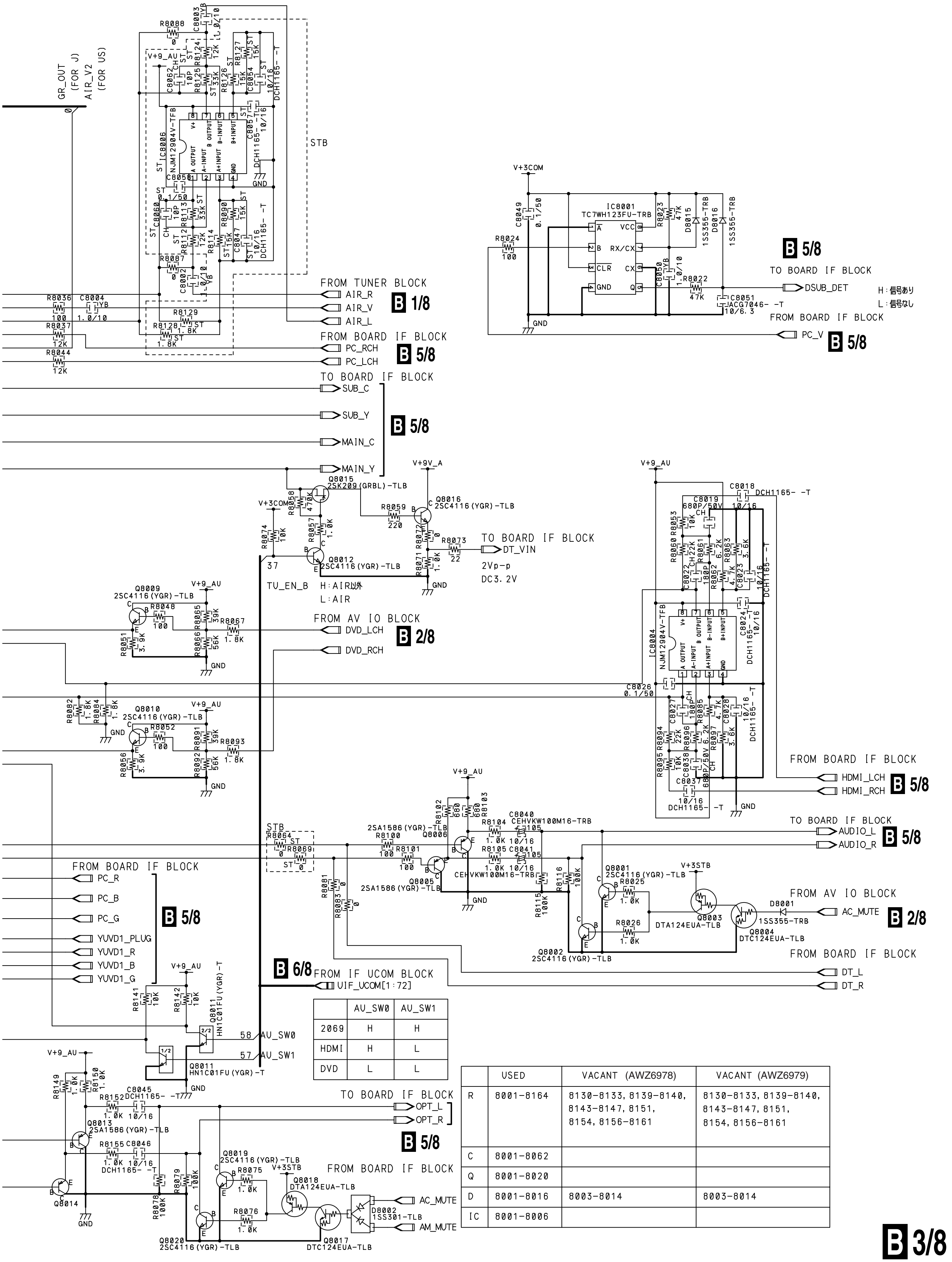
B 2/8

3.17 AV BOARD ASSY (3/8)

B 3/8 AV BOARD ASSY (PDP-R05U : AWZ6978) (PRO-R05U : AWZ6979)

● AV SW BLOCK


FROM AV IO BLOCK
AV_SW[0:50]
PC_H
PC_V
PCA_H
PCA_V
EU MODEL ONLY
PCA_H_SUB
PCA_V_SUB
CARD_H
CARD_V
CARD_LCH
CARD_RCH
J MODEL ONLY
VER_L
VER_R
DVD_LCH
DVD_RCH
MON_MUTE
J MODEL ONLY
AM_MUTE
FROM BOARD IF BLOCK
SCL_AV
SDA_AV
FROM AV IO BLOCK
YUV_SW[0:63]
EU MODEL ONLY
UIF_UCOM[1:72]
SLOW_SW_1
SLOW_SW_2
SLOW_SW_3
RAPID_SW_1
RAPID_SW_3
AIR_V
AIR_L
AIR_R
US MODEL ONLY TO/FROM AV_IO
DT_VIDEO
AIR_V2
J, US MODEL ONLY TO/FROM AV_IO
DT_Y
DT_C
DT_L
DT_R
J MODEL ONLY TO/FROM AV_IO
HP_L
HP_R
GR_OUT
DC_OUT
V1_V
V1_L
V1_Y
V1_R
V1_C
V1_F
V1_S
CXA2069Q
IC8002
V2
FRONT
DT
V1
SUB
MAIN
MONOUT
4052-A
TV1
TV2_V
/PC-A
③
④
Q8008
2SC4116(YGR)-TLB
Q8007
2SC4116(YGR)-TLB
IC8003
TC4052BFT-TBB
2069-L
HDMI-L
LOUT
DVD-L
HDMI-R
ROUT
2069-R
DVD-R
IC8005
AN15852A
SUB_V
MAIN_V
PC
V3
V1
FRONT
MAIN
SUB
STB
V+9V_A
V+5V_A
V+9_AU
GND
TO BOARD IF BLOCK
MAINC_Y
MAINC_PB
MAINC_PR
SUBC_Y
SUBC_PB
SUBC_PR
B 5/8
ROUT1
LOUT1
YOUT1
COUT1
R8148
100
R8153
100
2SA1586(YGR)-TLB
ACH1394- -TRB
DCH1165- -T

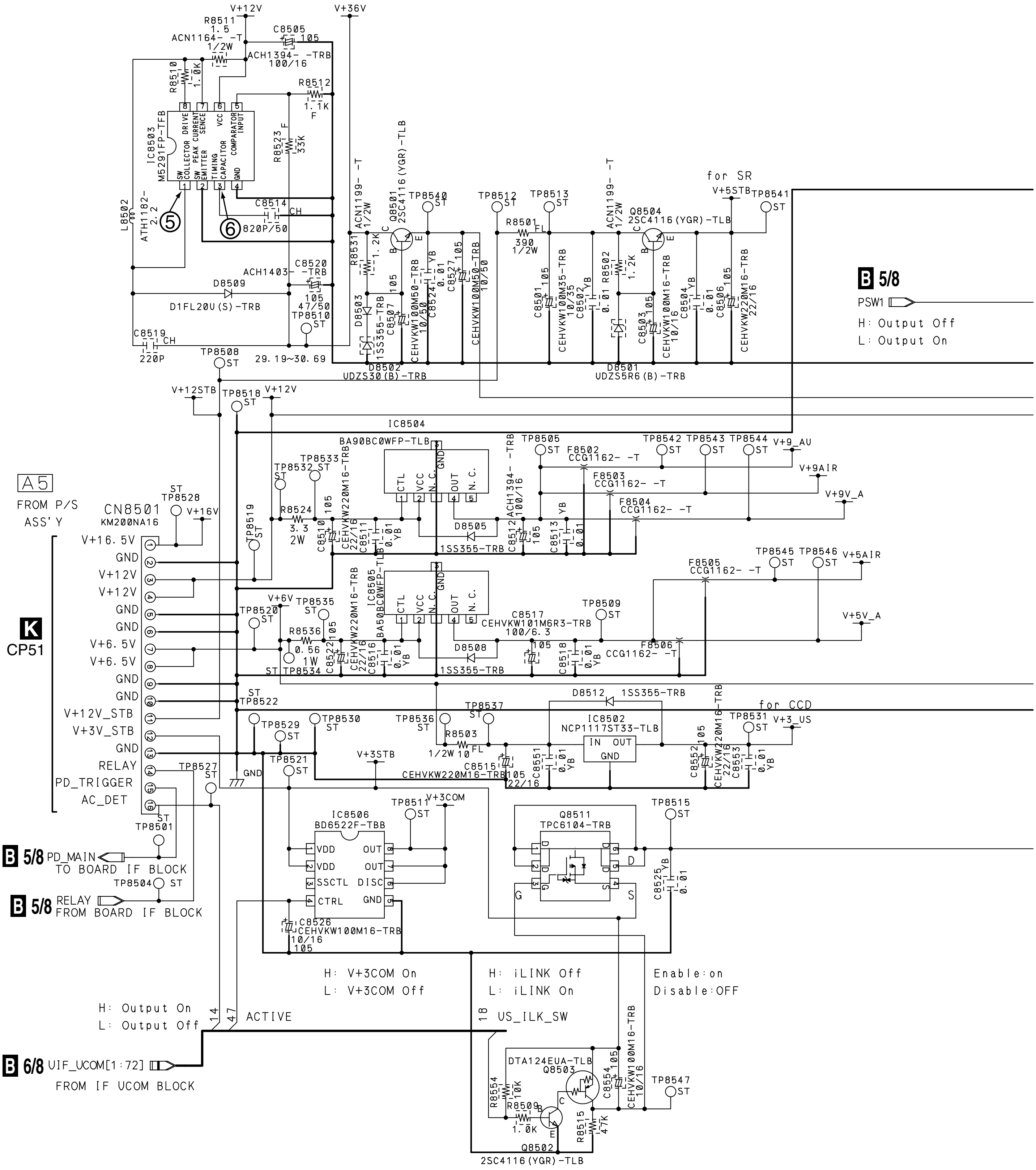

GR_OUT (FOR J)
AIR_V2 (FOR US)
STB
IC8006 NJM12904V-TFB
FROM TUNER BLOCK
AIR_R
AIR_V
AIR_L
B 1/8
FROM BOARD IF BLOCK
PC_RCH
PC_LCH
B 5/8
TO BOARD IF BLOCK
SUB_C
SUB_Y
MAIN_C
MAIN_Y
B 5/8
V+3COM
IC8001 TC7WH123FU-TRB
TO BOARD IF BLOCK
DSUB_DET
H:信号あり
L:信号なし
FROM BOARD IF BLOCK
PC_V
B 5/8
Q8015 2SK209(GRBL)-TLB
Q8016 2SC4116(YGR)-TLB
Q8012 2SC4116(YGR)-TLB
V+9V_A
TO BOARD IF BLOCK
DT_VIN
2Vp-p
DC3.2V
TU_EN_B H:AIR以外 L:AIR
Q8009 2SC4116(YGR)-TLB
FROM AV IO BLOCK
DVD_LCH
DVD_RCH
B 2/8
Q8010 2SC4116(YGR)-TLB
V+9_AU
IC8004 NJM12904V-TFB
FROM BOARD IF BLOCK
HDMI_LCH
HDMI_RCH
B 5/8
TO BOARD IF BLOCK
AUDIO_L
AUDIO_R
B 5/8
Q8006 2SA1586(YGR)-TLB
Q8005 2SA1586(YGR)-TLB
Q8001 2SC4116(YGR)-TLB
Q8003 DTA124EUA-TLB
Q8004 DTC124EUA-TLB
Q8002 2SC4116(YGR)-TLB
D8001 1SS355-TRB
FROM AV IO BLOCK
AC_MUTE
B 2/8
FROM BOARD IF BLOCK
DT_L
DT_R
FROM BOARD IF BLOCK
PC_R
PC_B
PC_G
YUVD1_PLUG
YUVD1_R
YUVD1_B
YUVD1_G
B 5/8
B 6/8 FROM IF UCOM BLOCK
UIF_UCOM[1:72]
Q8011 HN1C01FU(YGR)-T
58 AU_SW0
57 AU_SW1
TO BOARD IF BLOCK
OPT_L
OPT_R
B 5/8
Q8013 2SA1586(YGR)-TLB
Q8014
Q8019 2SC4116(YGR)-TLB
Q8018 DTA124EUA-TLB
Q8020 2SC4116(YGR)-TLB
Q8017 DTC124EUA-TLB
D8002 1SS301-TLB
FROM BOARD IF BLOCK
AC_MUTE
AM_MUTE
GND

	AU_SW0	AU_SW1
2069	H	H
HDMI	H	L
DVD	L	L

	USED	VACANT (AWZ6978)	VACANT (AWZ6979)
R	8001-8164	8130-8133, 8139-8140, 8143-8147, 8151, 8154, 8156-8161	8130-8133, 8139-8140, 8143-8147, 8151, 8154, 8156-8161
C	8001-8062		
Q	8001-8020		
D	8001-8016	8003-8014	8003-8014
IC	8001-8006		

B 3/8

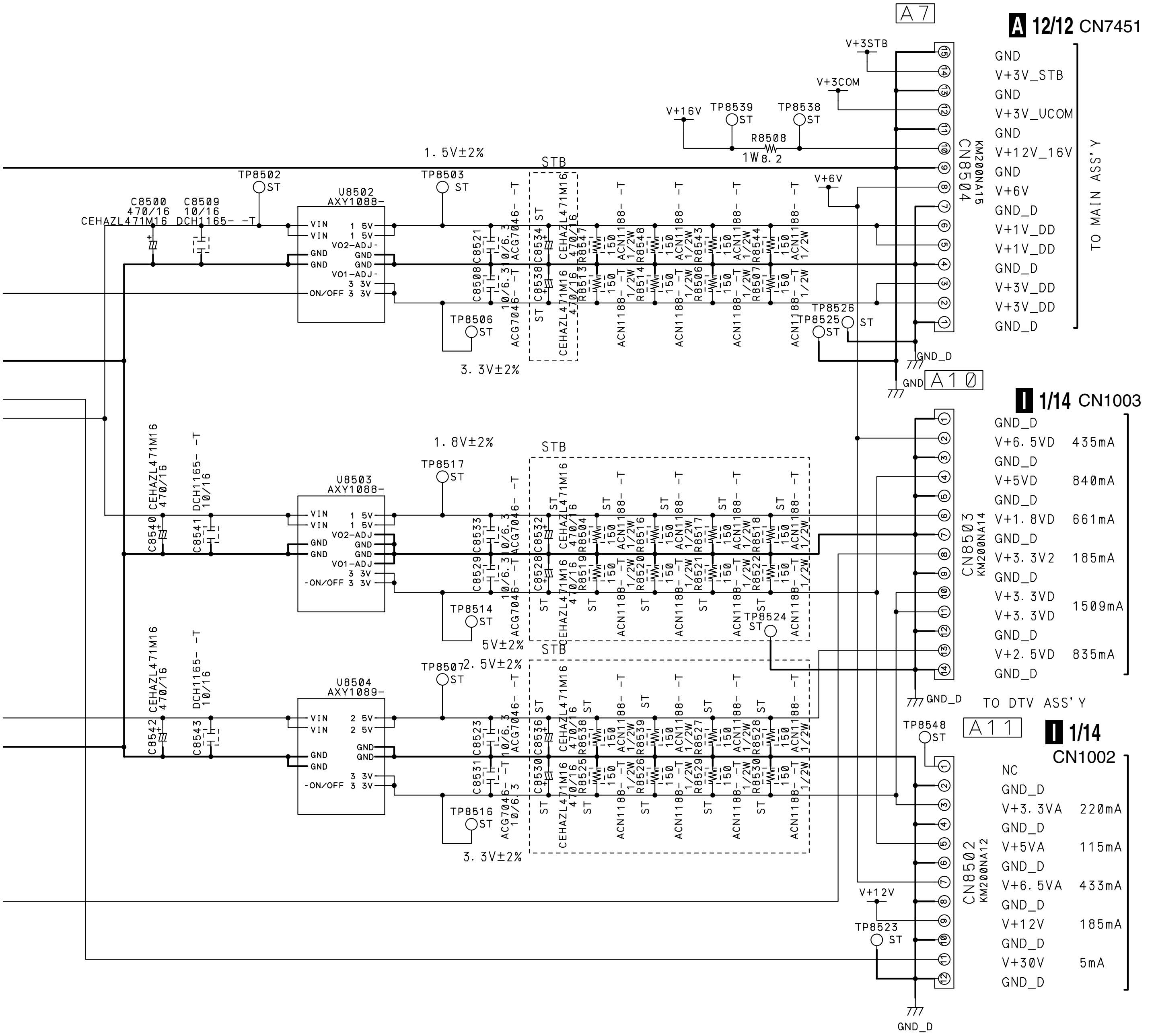
3.18 AV BOARD ASSY (4/8)


V+12V
V+36V
R8511
1.5
ACN1164- -T
1/2W
C8505
105
ACH1394- -TRB
100/16
R8510
1.0K
R8512
1.1K
F
IC8503
M5291FP-TFB
SW COLLECTOR
DRIVE
SW EMITTER
PEAK CURRENT SENCE
TIMING CAPACITOR
VCC
GND
COMPARATOR INPUT
R8523
33K
F
C8514
CH
820P/50
L8502
ATH1182-
2.2
⑤
⑥
ACH1403-
C8520
-TRB
105
47/50
D8509
D1FL20U(S)-TRB
TP8510
ST
C8519
CH
220P
TP8508
ST
29.19~30.69
ACN1199- -T
1/2W
R8531
1.2K
Q8501
2SC4116(YGR)-TLB
TP8540
ST
D8503
1SS355-TRB
C8507
105
CEHVKW100M50-TRB
10/50
C8524
YB
0.01
C8527
105
CEHVKW100M50-TRB
10/50
D8502
UDZS30(B)-TRB
TP8512
ST
R8501
FL
390
1/2W
TP8513
ST
C8501
105
CEHVKW100M35-TRB
10/35
C8502
YB
0.01
R8502
1.2K
ACN1199- -T
1/2W
Q8504
2SC4116(YGR)-TLB
D8501
UDZS5R6(B)-TRB
C8503
105
CEHVKW100M16-TRB
10/16
C8504
YB
0.01
C8506
105
CEHVKW220M16-TRB
22/16
for SR
V+5STB
TP8541
ST
B 5/8
PSW1
H: Output Off
L: Output On
V+12STB
TP8518
ST
V+12V
IC8504
BA90BC0WFP-TLB
TP8533
TP8532 ST
ST
R8524
3.3
2W
TP8519
ST
C8510
CEHVKW220M16-TRB
22/16
C8511
0.01
YB
105
CTL
VCC
N.C.
GND
OUT
N.C.
D8505
1SS355-TRB
C8512
ACH1394- -TRB
100/16
105
C8513
0.01
YB
TP8505
ST
F8502
CCG1162- -T
F8503
CCG1162- -T
F8504
CCG1162- -T
TP8542
ST
TP8543
ST
TP8544
ST
V+9_AU
V+9AIR
V+9V_A
A5
FROM P/S ASS'Y
CN8501
KM200NA16
ST
TP8528
V+16V
V+16.5V
GND
V+12V
V+12V
GND
GND
V+6.5V
V+6.5V
GND
GND
V+12V_STB
V+3V_STB
GND
RELAY
PD_TRIGGER
AC_DET
K
CP51
V+6V
TP8520
ST
TP8535
ST
R8536
0.56
1W
TP8534
ST
C8522
CEHVKW220M16-TRB
22/16
C8516
0.01
YB
105
IC8505
BA50BC0WFP-TLB
D8508
1SS355-TRB
C8517
CEHVKW101M6R3-TRB
100/6.3
105
C8518
0.01
YB
TP8509
ST
F8505
CCG1162- -T
F8506
CCG1162- -T
TP8545
ST
TP8546
ST
V+5AIR
V+5V_A
ST
TP8522
TP8529
ST
TP8530
ST
TP8536
ST
TP8537
ST
R8503
1/2W 10
FL
D8512
1SS355-TRB
IC8502
NCP1117ST33-TLB
IN
OUT
GND
C8515
CEHVKW220M16-TRB
105
22/16
C8551
0.01
YB
C8552
CEHVKW220M16-TRB
22/16
105
C8553
0.01
YB
for CCD
TP8531
ST
V+3_US
TP8527
ST
GND
TP8521
ST
V+3STB
ST
TP8501
B 5/8
PD_MAIN
TO BOARD IF BLOCK
TP8504
ST
B 5/8
RELAY
FROM BOARD IF BLOCK
TP8511
ST
V+3COM
IC8506
BD6522F-TBB
VDD
VDD
SSCTL
CTRL
OUT
OUT
DISC
GND
C8526
CEHVKW100M16-TRB
10/16
105
Q8511
TPC6104-TRB
D
G
S
TP8515
ST
C8525
YB
0.01
H: V+3COM On
L: V+3COM Off
H: iLINK Off
L: iLINK On
Enable:on
Disable:OFF
H: Output On
L: Output Off
14
47
ACTIVE
18
US_ILK_SW
B 6/8
UIF_UCOM[1:72]
FROM IF UCOM BLOCK
DTA124EUA-TLB
Q8503
R8554
10K
R8509
1.0K
C8554
105
CEHVKW100M16-TRB
10/16
R8515
47K
Q8502
2SC4116(YGR)-TLB
TP8547
ST
B
C
E

B 4/8

B 4/8 AV BOARD ASSY (PDP-R05U : AWZ6978) (PRO-R05U : AWZ6979)

● AV REG BLOCK

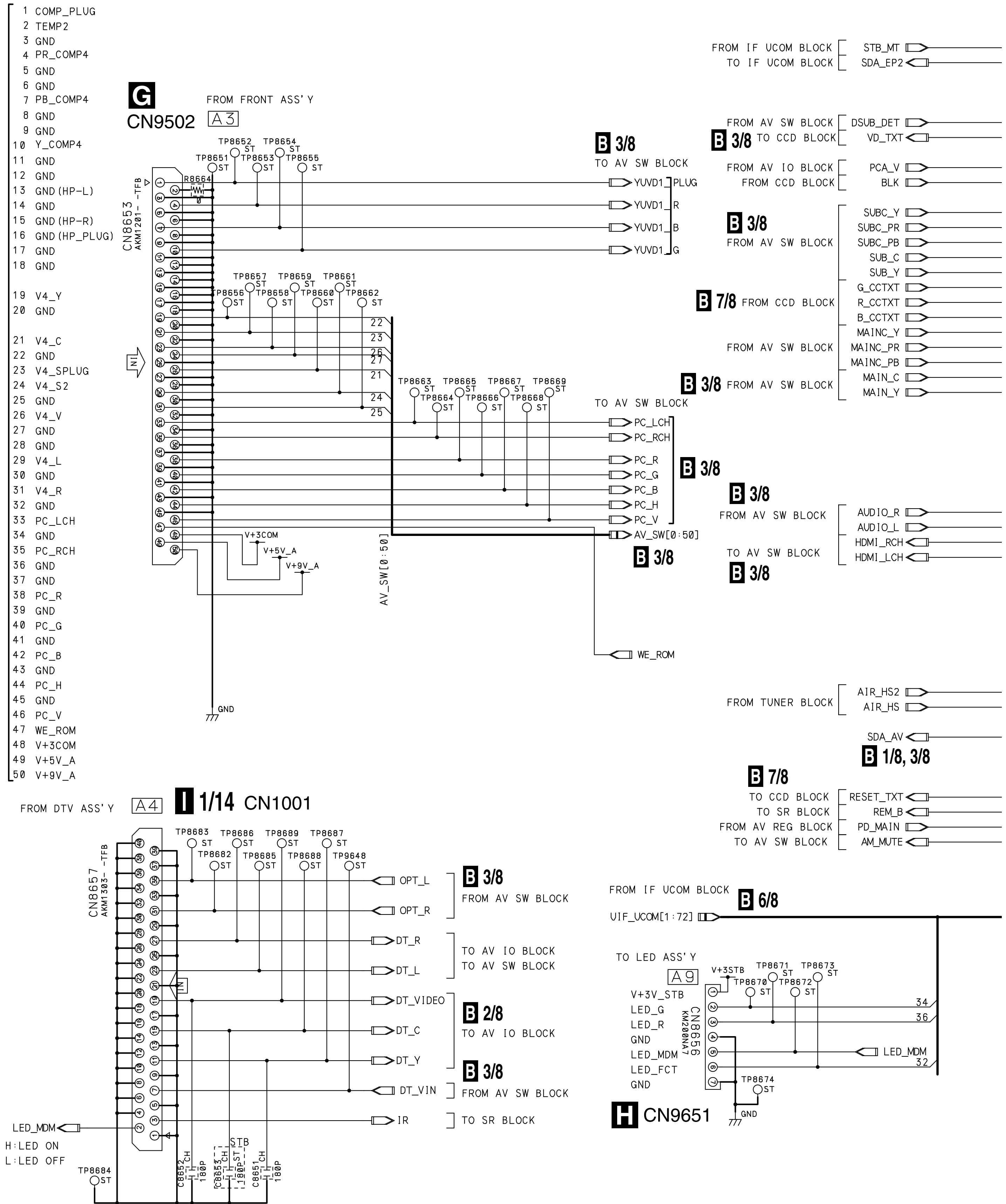

A7
A 12/12 CN7451
V+3STB
V+3COM
V+16V
TP8539
TP8538
R8508
1W8.2
1.5V±2%
STB
TP8502
TP8503
U8502
AXY1088-
C8500 470/16
C8509 10/16
CEHAZL471M16
DCH1165- -T
VIN
GND
VO2-ADJ-
VO1-ADJ-
ON/OFF 3.3V
TP8506
3.3V±2%
V+6V
TP8526
TP8525
CN8504
KM200NA15
GND
V+3V_STB
GND
V+3V_UCOM
GND
V+12V_16V
GND
V+6V
GND_D
V+1V_DD
V+1V_DD
GND_D
V+3V_DD
V+3V_DD
GND_D
TO MAIN ASS'Y
GND_D
A10
I 1/14 CN1003
1.8V±2%
U8503
AXY1088-
C8540
C8541
TP8517
TP8514
TP8524
CN8503
KM200NA14
GND_D
V+6.5VD 435mA
GND_D
V+5VD 840mA
GND_D
V+1.8VD 661mA
GND_D
V+3.3V2 185mA
GND_D
V+3.3VD
V+3.3VD 1509mA
GND_D
V+2.5VD 835mA
GND_D
TO DTV ASS'Y
5V±2%
2.5V±2%
U8504
AXY1089-
C8542
C8543
TP8507
TP8516
3.3V±2%
TP8548
A11
I 1/14
CN1002
CN8502
KM200NA12
NC
GND_D
V+3.3VA 220mA
GND_D
V+5VA 115mA
GND_D
V+6.5VA 433mA
GND_D
V+12V 185mA
GND_D
V+30V 5mA
GND_D
V+12V
TP8523
GND_D
ACG7046- -T
ACN1188- -T
150 1/2W
A
B
C
D
E
F

	USED	VACANT (AWZ6978)	VACANT (AWZ6979)
R	8501-8554	8505, 8532-8535, 8537, 8540-8542, 8545-8546, 8549-8553	8505, 8532-8535, 8537, 8540-8542, 8545-8546, 8549-8553
C	8500-8554	8535, 8537, 8539, 8544-8550	8535, 8537, 8539, 8544-8550
Q	8501-8511	8505-8510	8505-8510
D	8501-8512	8504, 8506-8507, 8510-8511	8504, 8506-8507, 8510-8511
U	8502-8504		
IC	8502-8506		
CN	8501-8504		

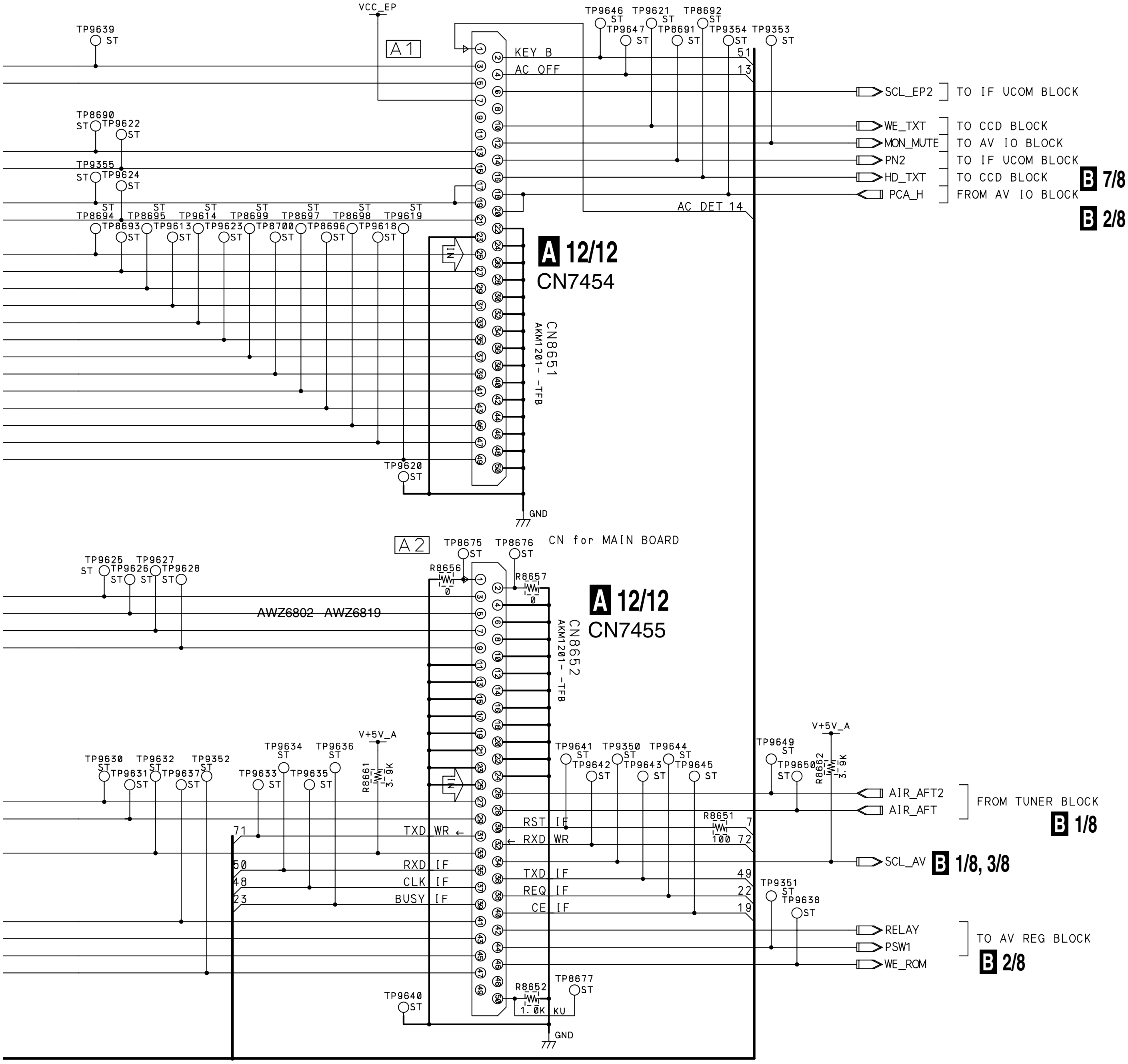
3.19 AV BOARD ASSY (5/8)

B 5/8 AV BOARD ASSY (PDP-R05U : AWZ6978) (PRO-R05U : AWZ6979)

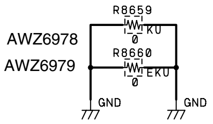
● BOARD IF BLOCK


1 COMP_PLUG
2 TEMP2
3 GND
4 PR_COMP4
5 GND
6 GND
7 PB_COMP4
8 GND
9 GND
10 Y_COMP4
11 GND
12 GND
13 GND(HP-L)
14 GND
15 GND(HP-R)
16 GND(HP_PLUG)
17 GND
18 GND
19 V4_Y
20 GND
21 V4_C
22 GND
23 V4_SPLUG
24 V4_S2
25 GND
26 V4_V
27 GND
28 GND
29 V4_L
30 GND
31 V4_R
32 GND
33 PC_LCH
34 GND
35 PC_RCH
36 GND
37 GND
38 PC_R
39 GND
40 PC_G
41 GND
42 PC_B
43 GND
44 PC_H
45 GND
46 PC_V
47 WE_ROM
48 V+3COM
49 V+5V_A
50 V+9V_A
G
CN9502
FROM FRONT ASS'Y
A3
CN8653
AKM1201- -TFB
IN
R8664
TP8651 ST
TP8652 ST
TP8653 ST
TP8654 ST
TP8655 ST
TP8656 ST
TP8657 ST
TP8658 ST
TP8659 ST
TP8660 ST
TP8661 ST
TP8662 ST
TP8663 ST
TP8664 ST
TP8665 ST
TP8666 ST
TP8667 ST
TP8668 ST
TP8669 ST
22 23 26 27 21 24 25
V+3COM
V+5V_A
V+9V_A
AV_SW[0:50]
GND
B 3/8
TO AV SW BLOCK
YUVD1 PLUG
YUVD1_R
YUVD1_B
YUVD1_G
TO AV SW BLOCK
PC_LCH
PC_RCH
PC_R
PC_G
PC_B
PC_H
PC_V
AV_SW[0:50]
B 3/8
B 3/8
WE_ROM
FROM IF UCOM BLOCK
TO IF UCOM BLOCK
STB_MT
SDA_EP2
FROM AV SW BLOCK
B 3/8 TO CCD BLOCK
DSUB_DET
VD_TXT
FROM AV IO BLOCK
FROM CCD BLOCK
PCA_V
BLK
B 3/8
FROM AV SW BLOCK
SUBC_Y
SUBC_PR
SUBC_PB
SUB_C
SUB_Y
B 7/8 FROM CCD BLOCK
G_CCTXT
R_CCTXT
B_CCTXT
FROM AV SW BLOCK
MAINC_Y
MAINC_PR
MAINC_PB
B 3/8 FROM AV SW BLOCK
MAIN_C
MAIN_Y
B 3/8
FROM AV SW BLOCK
TO AV SW BLOCK
B 3/8
AUDIO_R
AUDIO_L
HDMI_RCH
HDMI_LCH
FROM TUNER BLOCK
AIR_HS2
AIR_HS
SDA_AV
B 1/8, 3/8
B 7/8
TO CCD BLOCK
TO SR BLOCK
FROM AV REG BLOCK
TO AV SW BLOCK
RESET_TXT
REM_B
PD_MAIN
AM_MUTE
FROM DTV ASS'Y
A4
I 1/14 CN1001
CN8657
AKM1303- -TFB
IN
TP8683 ST
TP8686 ST
TP8689 ST
TP8687 ST
TP8682 ST
TP8685 ST
TP8688 ST
TP9648 ST
OPT_L
OPT_R
B 3/8
FROM AV SW BLOCK
DT_R
DT_L
TO AV IO BLOCK
TO AV SW BLOCK
DT_VIDEO
DT_C
DT_Y
B 2/8
TO AV IO BLOCK
DT_VIN
B 3/8
FROM AV SW BLOCK
IR
TO SR BLOCK
LED_MDM
H:LED ON
L:LED OFF
TP8684 ST
C8652 CH 180P
C8653 CH 180P
STB
C8651 CH 180P
GND
FROM IF UCOM BLOCK
B 6/8
UIF_UCOM[1:72]
TO LED ASS'Y
A9
V+3STB
TP8670 ST
TP8671 ST
TP8672 ST
TP8673 ST
V+3V_STB
LED_G
LED_R
GND
LED_MDM
LED_FCT
GND
CN8656
KM200NA7
34
36
LED_MDM
32
TP8674 ST
GND
H CN9651

B 5/8


VCC_EP
A1
TP9639 ST
KEY_B
AC_OFF
TP9646 ST TP9621 ST TP8692 ST
TP9647 ST TP8691 ST TP9354 ST TP9353 ST
51
13
SCL_EP2 TO IF UCOM BLOCK
WE_TXT TO CCD BLOCK
MON_MUTE TO AV IO BLOCK
PN2 TO IF UCOM BLOCK
HD_TXT TO CCD BLOCK
PCA_H FROM AV IO BLOCK
B 7/8
B 2/8
AC_DET 14
TP8690 ST TP9622 ST
TP9355 ST TP9624 ST
TP8694 TP8695 TP9614 TP8699 TP8697 TP8698 TP9619
TP8693 TP9613 TP9623 TP8700 TP8696 TP9618
A 12/12
CN7454
CN8651
AKM1201- -TFB
TP9620 ST
GND
A2
TP8675 ST TP8676 ST
CN for MAIN BOARD
TP9625 ST TP9627 ST
TP9626 ST TP9628 ST
R8656 0
R8657 0
A 12/12
CN7455
CN8652
AKM1201- -TFB
AWZ6802 AWZ6819
V+5V_A
R8661 3.9K
TP9630 ST TP9632 ST TP9352 ST
TP9631 ST TP9637 ST
TP9634 ST TP9636 ST
TP9633 ST TP9635 ST
TP9641 ST TP9350 ST TP9644 ST
TP9642 ST TP9643 ST TP9645 ST
TP9649 ST TP9650 ST
V+5V_A
R8662 3.9K
AIR_AFT2
AIR_AFT
FROM TUNER BLOCK
B 1/8
71
TXD_WR ←
RST_IF
← RXD_WR
R8651 100
7
72
SCL_AV B 1/8, 3/8
50 RXD_IF
48 CLK_IF
23 BUSY_IF
TXD_IF 49
REQ_IF 22
CE_IF 19
TP9351 ST
TP9638 ST
RELAY
PSW1
WE_ROM
TO AV REG BLOCK
B 2/8
TP9640 ST
R8652 1.0K KU
TP8677 ST
GND

ELITE DET	AWZ6978	AWZ6979
R8652	1kΩ	Not used

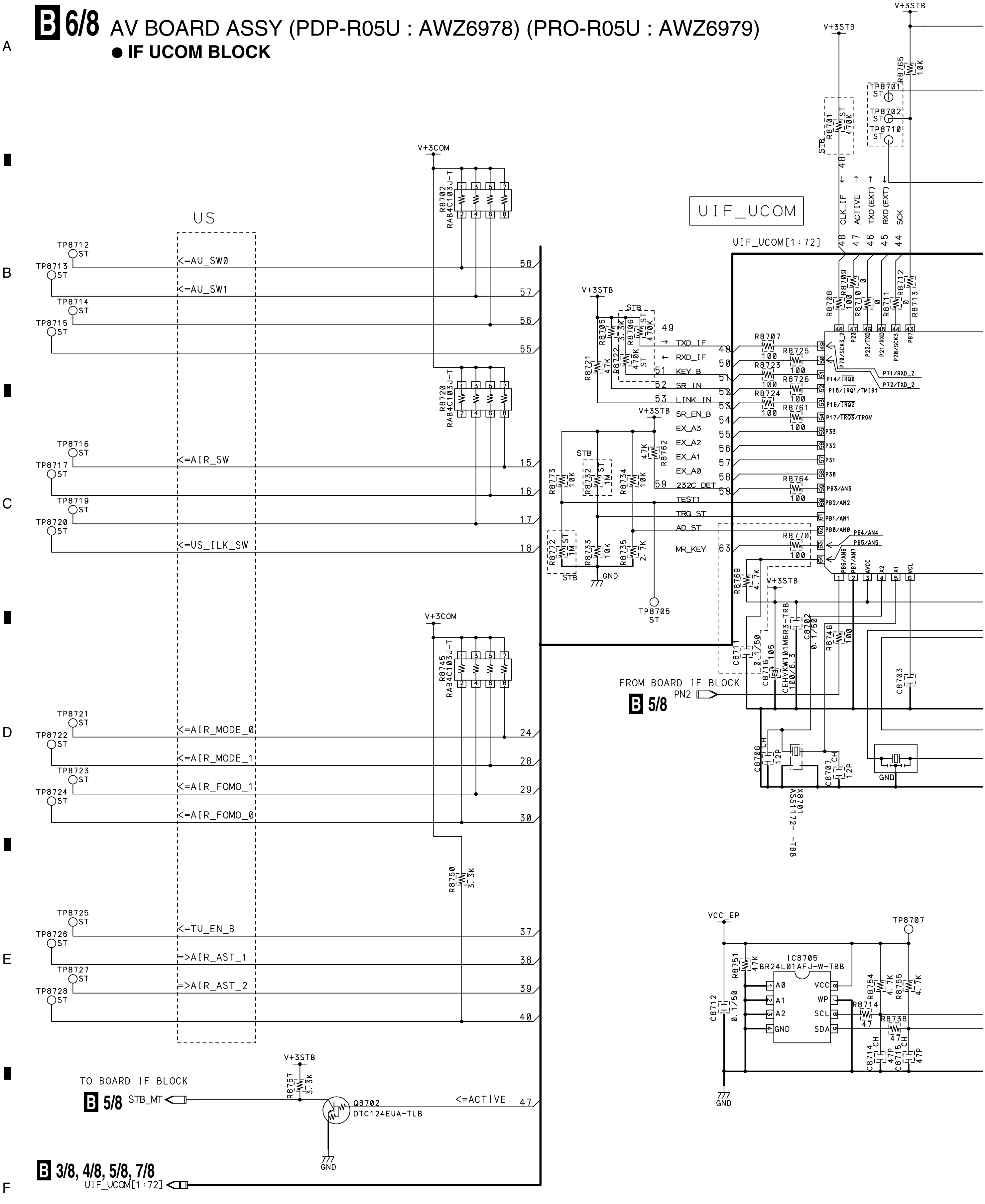

R8659
0 KU
R8660
0 EKU
AWZ6978
AWZ6979
GND
GND

	USED	VACANT (AWZ6978)	VACANT (AWZ6979)
R	8651-8664	8653-55, 8658, 8660, 8663	8652-55, 8658-8659, 8663
C	8651-8653		
CN	8651-8657	8654-8655	8654-8655

3.20 AV BOARD (6/8) and SW ASSYS

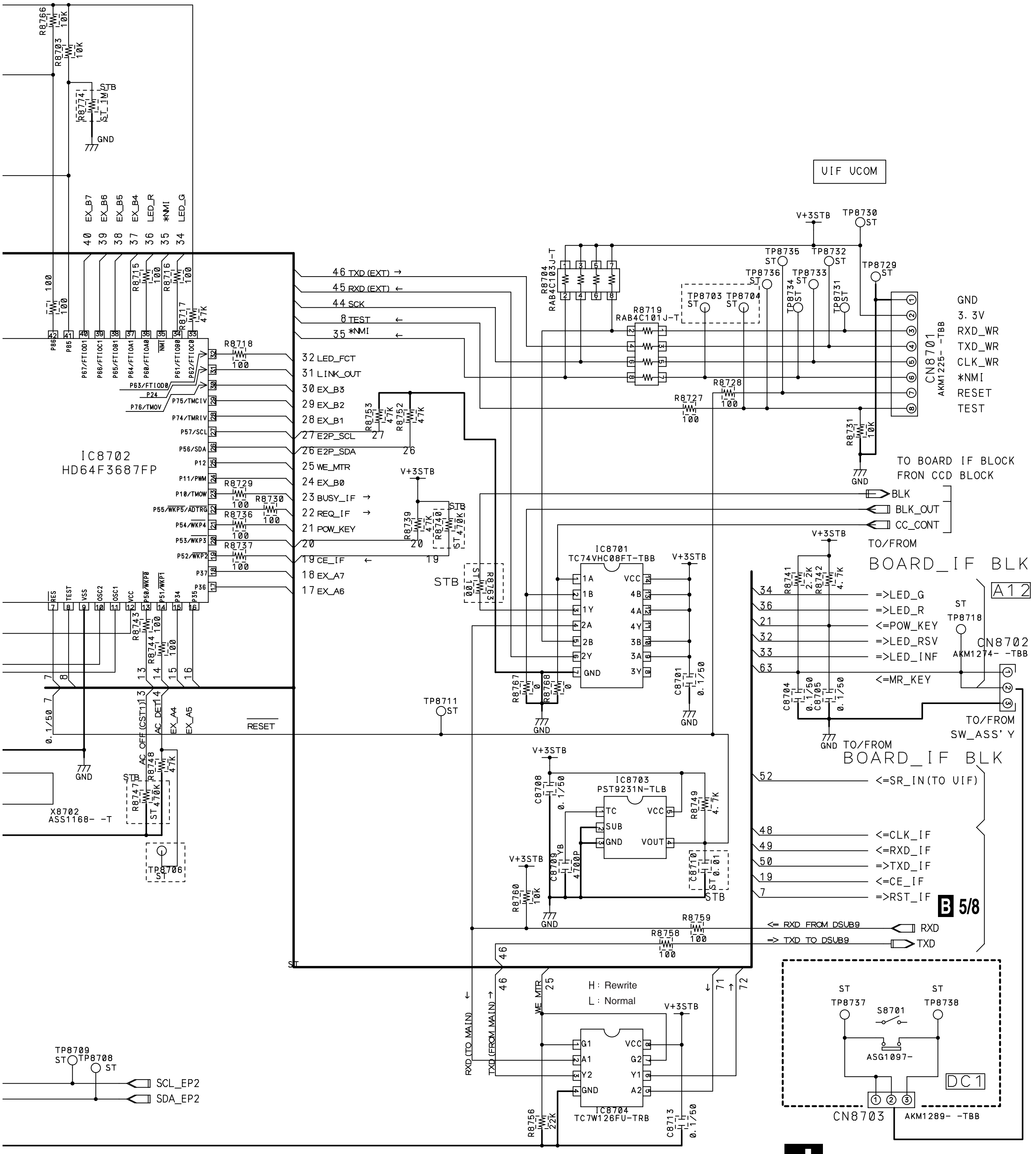
B 6/8 AV BOARD ASSY (PDP-R05U : AWZ6978) (PRO-R05U : AWZ6979)

● IF UCOM BLOCK



A
B
C
D
E
F
V+3STB
V+3STB
R8765
10K
TP8701 ST
TP8702 ST
TP8710 ST
STB
R8701
ST 470K
48
CLK_IF
ACTIVE
TXD (EXT)
RXD (EXT)
SCK
UIF_UCOM
UIF_UCOM[1:72]
48 47 46 45 44
R8708
R8709 100
R8710 0
R8711 0
R8712 0
R8713
V+3COM
R8702
RAB4C103J-T
US
TP8712 ST
TP8713 ST
TP8714 ST
TP8715 ST
<=AU_SW0
<=AU_SW1
58
57
56
55
V+3STB
STB
R8705 3.3K
R8706 470K
ST
R8721 4.7K
R8722 470K ST
49
→ TXD_IF
← RXD_IF
KEY_B
SR_IN
LINK_IN
SR_EN_B
EX_A3
EX_A2
EX_A1
EX_A0
232C_DET
TEST1
TRG_ST
AD_ST
MR_KEY
49 50 51 52 53 54 55 56 57 58 59 63
R8707 100
R8725 100
R8723 100
R8726 100
R8724 100
R8761 100
R8764 100
R8770 100
P70/SCK3_2
P23
P22/TXD
P21/RXD
P20/SCK3
P87
P71/RXD_2
P72/TXD_2
P14/IRQ0
P15/IRQ1/TMIB1
P16/IRQ2
P17/IRQ3/TRGV
P33
P32
P31
P30
PB3/AN3
PB2/AN2
PB1/AN1
PB0/AN0
PB4/AN4
PB5/AN5
PB6/AN6
PB7/AN7
AVCC
X2
X1
VCL
R8720
RAB4C103J-T
V+3STB
R8762 47K
R8773 10K
R8732 ST 1M
R8734 10K
STB
TP8716 ST
TP8717 ST
TP8719 ST
TP8720 ST
<=AIR_SW
<=US_ILK_SW
15
16
17
18
R8772 ST 1M
R8733 10K
R8735 2.7K
STB
GND
TP8705 ST
R8769 4.7K
V+3STB
C8711 0.1/50
C8716 105
CEHVKW101M6R3-TRB 100/6.3
C8702 0.1/50
R8746 100
C8703
FROM BOARD IF BLOCK
B 5/8
PN2
V+3COM
R8745
RAB4C103J-T
TP8721 ST
TP8722 ST
TP8723 ST
TP8724 ST
<=AIR_MODE_0
<=AIR_MODE_1
<=AIR_FOMO_1
<=AIR_FOMO_0
24
28
29
30
C8706 CH 12P
C8707 CH 12P
X8701
ASS1172-TBB
GND
R8750 3.3K
TP8725 ST
TP8726 ST
TP8727 ST
TP8728 ST
<=TU_EN_B
=>AIR_AST_1
=>AIR_AST_2
37
38
39
40
VCC_EP
TP8707
R8751 47K
IC8705
BR24L01AFJ-W-TBB
A0
A1
A2
GND
VCC
WP
SCL
SDA
R8754 4.7K
R8755 4.7K
R8714 47
R8738 47
C8712 0.1/50
C8714 CH 47P
C8715 CH 47P
GND
V+3STB
R8757 3.3K
TO BOARD IF BLOCK
B 5/8
STB_MT
Q8702
DTC124EUA-TLB
<=ACTIVE
47
GND
B 3/8, 4/8, 5/8, 7/8
UIF_UCOM[1:72]

B 6/8


UIF UCOM
IC8702
HD64F3687FP
IC8701
TC74VHC08FT-TBB
IC8703
PST9231N-TLB
IC8704
TC7W126FU-TRB
CN8701
AKM1225- -TBB
GND
3.3V
RXD_WR
TXD_WR
CLK_WR
*NMI
RESET
TEST
TO BOARD IF BLOCK
FRON CCD BLOCK
BLK
BLK_OUT
CC_CONT
TO/FROM
BOARD_IF BLK
A12
CN8702
AKM1274- -TBB
=>LED_G
=>LED_R
<=POW_KEY
=>LED_RSV
=>LED_INF
<=MR_KEY
TO/FROM
SW_ASS'Y
TO/FROM
BOARD_IF BLK
<=SR_IN(TO UIF)
<=CLK_IF
<=RXD_IF
=>TXD_IF
<=CE_IF
=>RST_IF
B 5/8
<= RXD FROM DSUB9
=> TXD TO DSUB9
RXD
TXD
46 TXD (EXT)
45 RXD (EXT)
44 SCK
8 TEST
35 *NMI
32 LED_FCT
31 LINK_OUT
30 EX_B3
29 EX_B2
28 EX_B1
27 E2P_SCL
26 E2P_SDA
25 WE_MTR
24 EX_B0
23 BUSY_IF
22 REQ_IF
21 POW_KEY
20
19 CE_IF
18 EX_A7
17 EX_A6
EX_B7
EX_B6
EX_B5
EX_B4
LED_R
*NMI
LED_G
AC_OFF (CST1)
AC_DET
EX_A4
EX_A5
RESET
X8702
ASS1168- -T
TP8706
TP8709
TP8708
SCL_EP2
SDA_EP2
RXD (TO MAIN)
TXD (FROM MAIN)
WE_MTR
H : Rewrite
L : Normal
V+3STB
GND
STB
TP8737
TP8738
S8701
ASG1097-
DC1
CN8703
AKM1289- -TBB

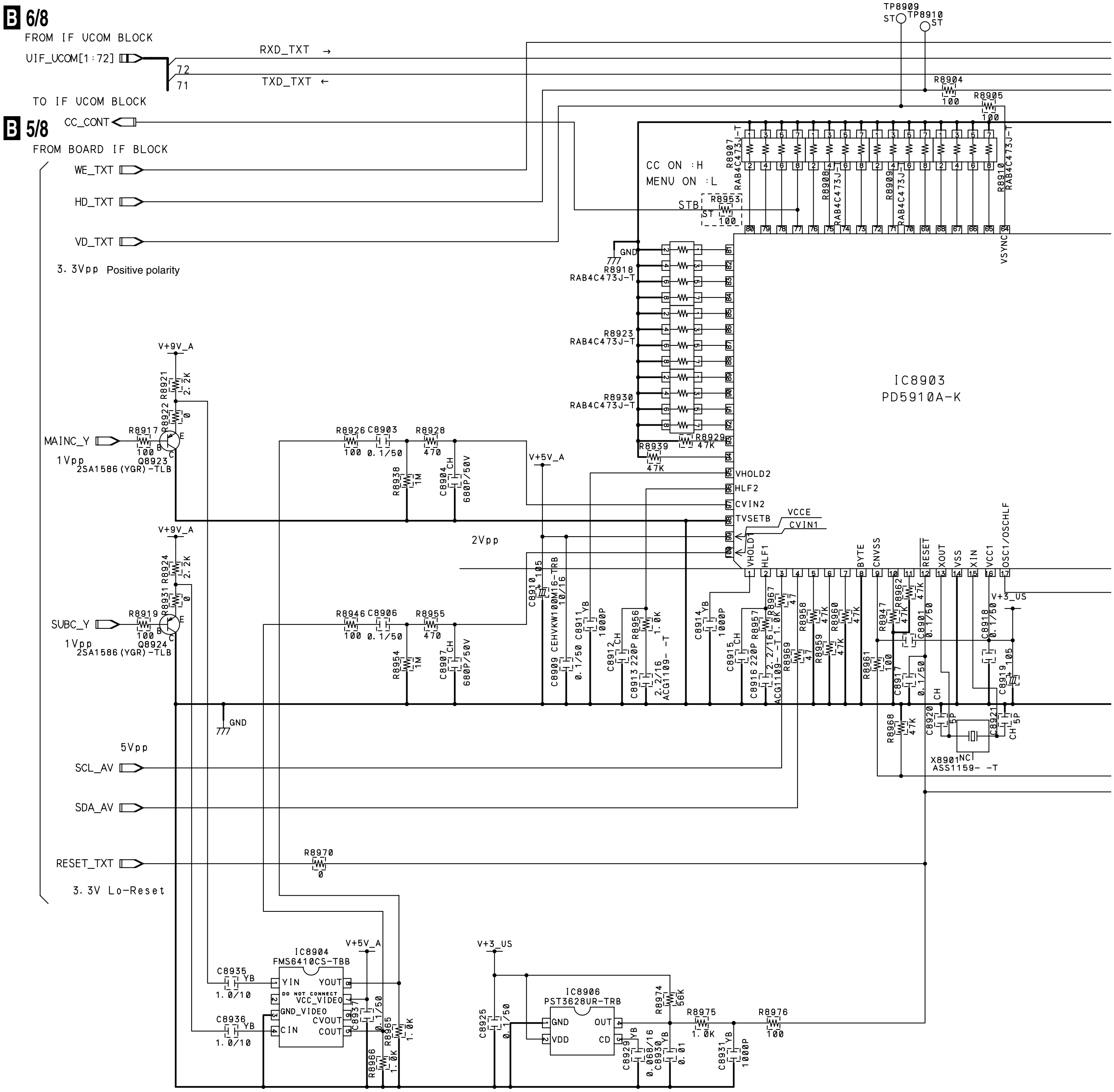
	USED	VACANT (AWZ6978)	VACANT (AWZ6979)
R	8701-8774	8771	8771
C	8701-8716		
Q	8702		
D			
X	8701-8702		
IC	8701-8705		
CN	8701		

J SW ASSY
(AWZ6977)

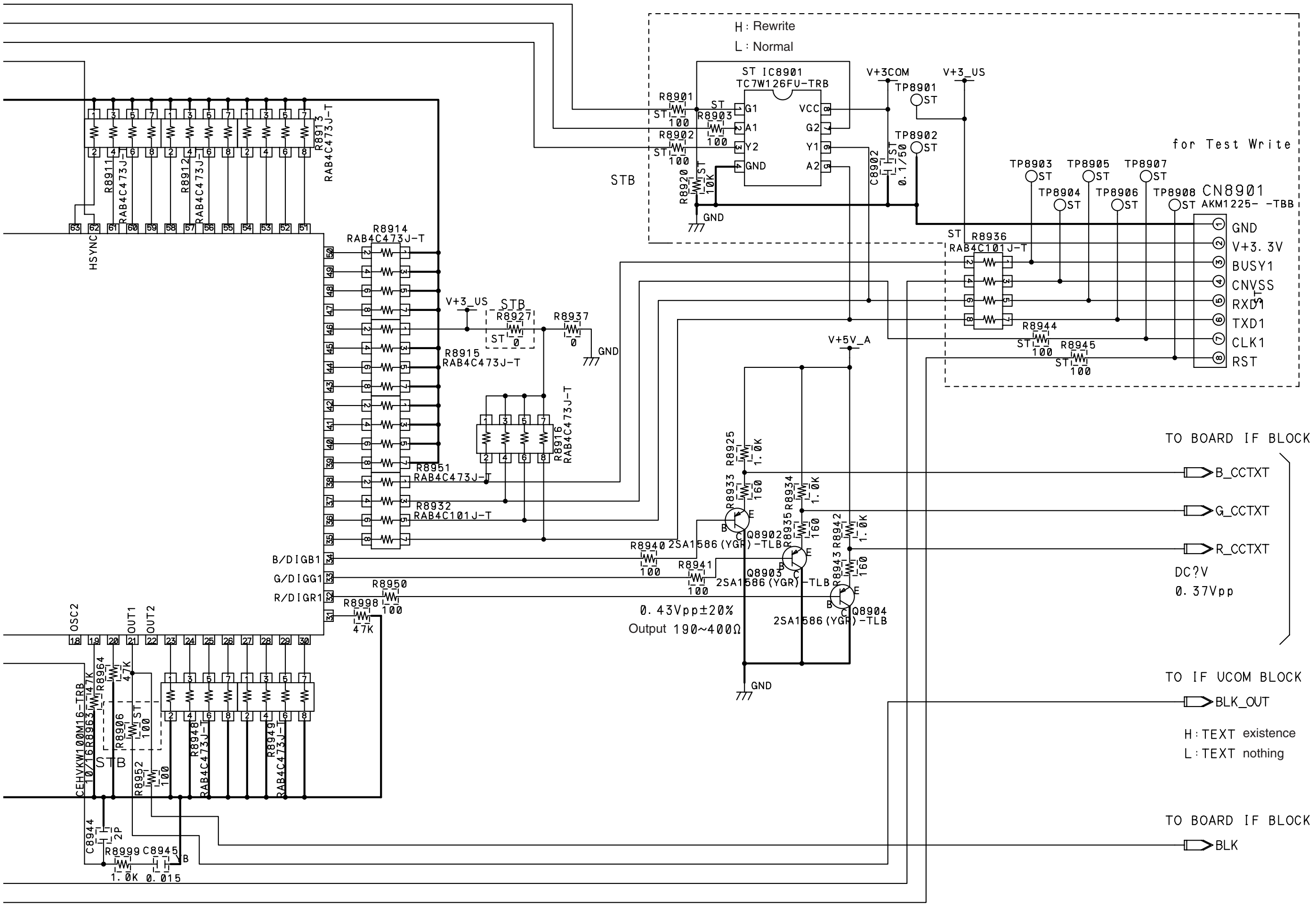
3.21 AV BOARD ASSY (7/8)

B 7/8 AV BOARD ASSY (PDP-R05U : AWZ6978) (PRO-R05U : AWZ6979)

● CCD BLOCK

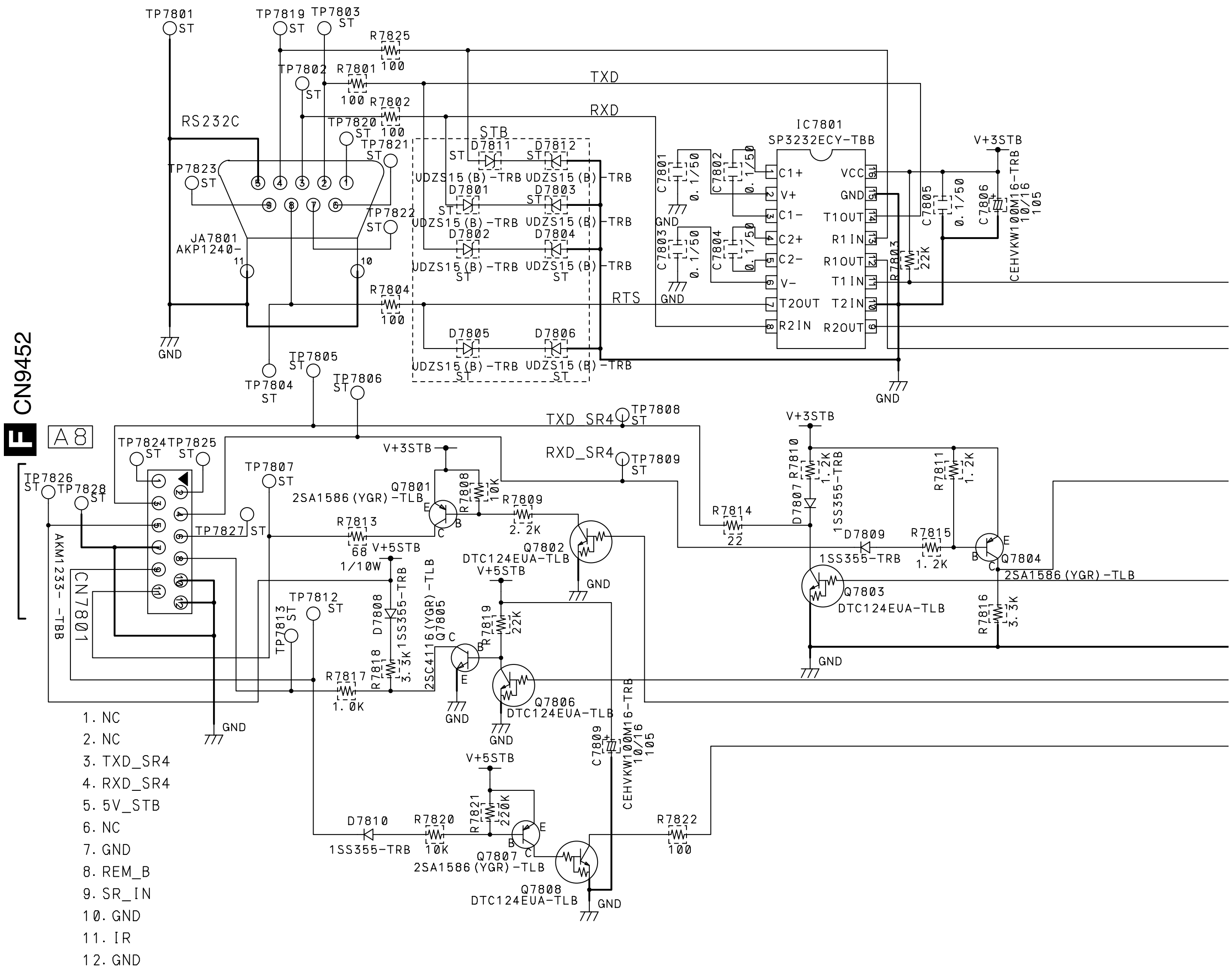

B 6/8
FROM IF UCOM BLOCK
UIF_UCOM[1:72]
72
71
RXD_TXT →
TXD_TXT ←
TO IF UCOM BLOCK
B 5/8
CC_CONT
FROM BOARD IF BLOCK
WE_TXT
HD_TXT
VD_TXT
3.3Vpp Positive polarity
TP8909 ST
TP8910 ST
R8904 100
R8905 100
R8907 RAB4C473J-T
R8908 RAB4C473J-T
R8909 RAB4C473J-T
R8910 RAB4C473J-T
CC ON :H
MENU ON :L
STB
R8953 100
ST
VSYNC
GND
R8918 RAB4C473J-T
R8923 RAB4C473J-T
R8930 RAB4C473J-T
R8929 47K
R8939 47K
IC8903
PD5910A-K
VHOLD2
HLF2
CVIN2
TVSETB
VCCE
CVIN1
VHOLD1
HLF1
BYTE
CNVSS
RESET
XOUT
VSS
XIN
VCC1
OSC1/OSCHLF
V+9V_A
R8921 2.2K
R8922 0
R8917 100
MAINC_Y
1Vpp
Q8923
2SA1586(YGR)-TLB
R8926 100
C8903 0.1/50
R8928 470
R8938 1M
C8904 CH 680P/50V
V+5V_A
2Vpp
V+9V_A
R8924 2.2K
R8931 0
R8919 100
SUBC_Y
1Vpp
Q8924
2SA1586(YGR)-TLB
R8946 100
C8906 0.1/50
R8955 470
R8954 1M
C8907 CH 680P/50V
C8910 105
CEHVKW100M16-TRB 10/16
C8909 0.1/50
C8911 YB 1000P
C8912 CH
C8913 220P
R8956 1.0K
2.2/16 ACG1109- -T
C8914 YB 1000P
C8915 CH
C8916 220P
R8957 1.0K
2.2/16 ACG1109- -T
R8967 47
R8969 47
R8958 47K
R8959 47K
R8960 47K
R8961 47K
R8947 100
R8962 47K
C8901 0.1/50
C8917 0.1/50
V+3_US
C8918 0.1/50
C8919 105
R8968 47K
C8920 CH 5P
C8921 CH 5P
X8901 NC
ASS1159- -T
GND
5Vpp
SCL_AV
SDA_AV
RESET_TXT
R8970 0
3.3V Lo-Reset
IC8904
FMS6410CS-TBB
V+5V_A
C8935 YB 1.0/10
C8936 YB 1.0/10
YIN
YOUT
DO NOT CONNECT
VCC_VIDEO
GND_VIDEO
CVOUT
CIN
COUT
C8937 0.1/50
R8965 1.0K
R8966 1.0K
V+3_US
C8925 0.1/50
IC8906
PST3628UR-TRB
GND
VDD
OUT
CD
R8974 56K
C8929 YB 0.068/16
C8930 YB 0.01
R8975 1.0K
R8976 100
C8931 YB 1000P

B 7/8


H : Rewrite
L : Normal
ST IC8901
TC7W126FU-TRB
R8901
R8902
R8903
R8920
10K
100
ST
STB
G1
A1
Y2
GND
VCC
G2
Y1
A2
V+3COM
V+3_US
TP8901
TP8902
C8902
0.1/50
for Test Write
TP8903
TP8904
TP8905
TP8906
TP8907
TP8908
CN8901
AKM1225- -TBB
GND
V+3.3V
BUSY1
CNVSS
RXD1
TXD1
CLK1
RST
R8936
RAB4C101J-T
R8944
R8945
R8911
RAB4C473J-T
R8912
RAB4C473J-T
R8913
RAB4C473J-T
HSYNC
R8914
RAB4C473J-T
R8915
RAB4C473J-T
R8916
RAB4C473J-T
R8927
R8937
0
V+3_US
R8951
RAB4C473J-T
R8932
RAB4C101J-T
B/DIGB1
G/DIGG1
R/DIGR1
R8950
R8998
47K
R8940
R8941
R8925
1.0K
R8933
160
R8934
R8935
R8942
R8943
Q8902
Q8903
Q8904
2SA1586(YGR)-TLB
V+5V_A
0.43Vpp±20%
Output 190~400Ω
TO BOARD IF BLOCK
B_CCTXT
G_CCTXT
R_CCTXT
DC?V
0.37Vpp
TO IF UCOM BLOCK
BLK_OUT
H:TEXT existence
L:TEXT nothing
TO BOARD IF BLOCK
BLK
OSC2
OUT1
OUT2
R8964
47K
R8963
R8906
R8952
R8948
RAB4C473J-T
R8949
RAB4C473J-T
CEHVKW100M16-TRB
10/16
C8944
2P
R8999
1.0K
C8945
0.015
GND

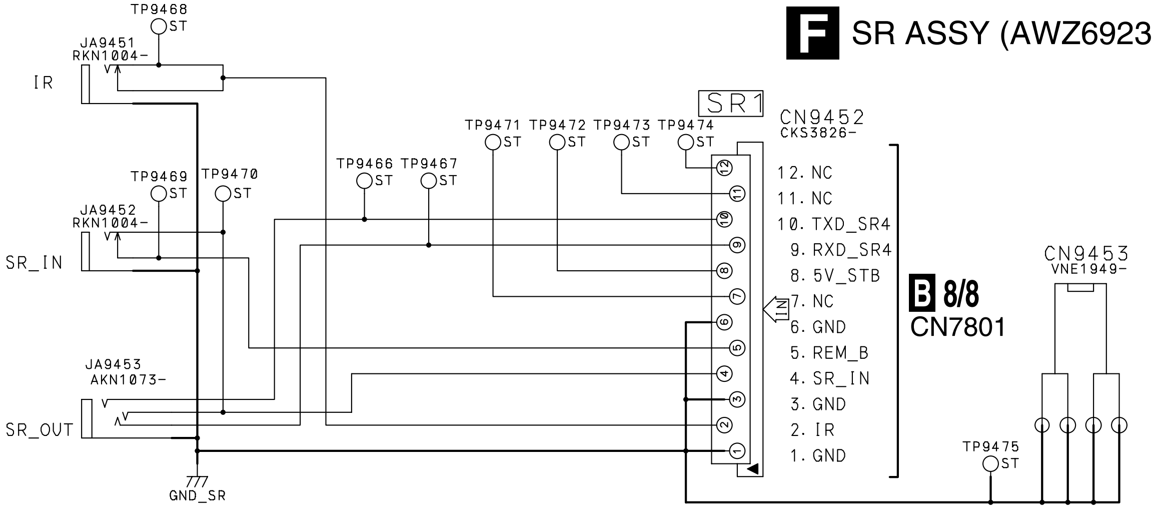
	USED	VACANT (AWZ6978)	VACANT (AWZ6979)
R	8901-8976	8971-8973	8971-8973
C	8901-8945	8905, 8908, 8922-8924, 8926-8928, 8932-8934, 8938-8943	8905, 8908, 8922-8924, 8926-8928, 8932-8934, 8938-8943
Q	8902-8924	8905-8922	8905-8922
D			
X	8901		
IC	8901-8906	8902, 8905	8902, 8905
CN	8901		

3.22 AV BOARD (8/8) and SR ASSYS



RS232C
JA7801
AKP1240-
TP7801
TP7819
TP7803
TP7802
TP7820
TP7821
TP7822
TP7823
TP7804
TP7805
TP7806
R7825 100
R7801 100
R7802 100
R7804 100
TXD
RXD
RTS
STB
D7811 D7812 D7801 D7803 D7802 D7804 D7805 D7806
UDZS15(B)-TRB
IC7801
SP3232ECY-TBB
C1+ V+ C1- C2+ C2- V- T2OUT R2IN
VCC GND T1OUT R1IN R1OUT T1IN T2IN R2OUT
C7801 C7802 C7803 C7804 C7805 0.1/50
C7806 CEHVKW100M16-TRB 10/16 105
R7803 22K
V+3STB
GND
CN9452
F A8
TP7824 TP7825 TP7826 TP7828 TP7807 TP7827 TP7812 TP7813
AKM1233-TBB
CN7801
TXD_SR4 TP7808
RXD_SR4 TP7809
V+3STB
Q7801 2SA1586(YGR)-TLB
R7808 10K
R7809 2.2K
R7813 68 1/10W
Q7802 DTC124EUA-TLB
V+5STB
D7808 1SS355-TRB
R7818 3.3K
Q7805 2SC4116(YGR)-TLB
R7819 22K
Q7806 DTC124EUA-TLB
R7817 1.0K
C7809 CEHVKW100M16-TRB 10/16 105
R7821 220K
D7810 1SS355-TRB
R7820 10K
Q7807 2SA1586(YGR)-TLB
Q7808 DTC124EUA-TLB
R7822 100
R7810 1.2K
D7807 1SS355-TRB
R7814 22
D7809 1SS355-TRB
R7815 1.2K
R7811 1.2K
Q7804 2SA1586(YGR)-TLB
Q7803 DTC124EUA-TLB
R7816 3.3K
1. NC
2. NC
3. TXD_SR4
4. RXD_SR4
5. 5V_STB
6. NC
7. GND
8. REM_B
9. SR_IN
10. GND
11. IR
12. GND

F SR ASSY (AWZ6923)

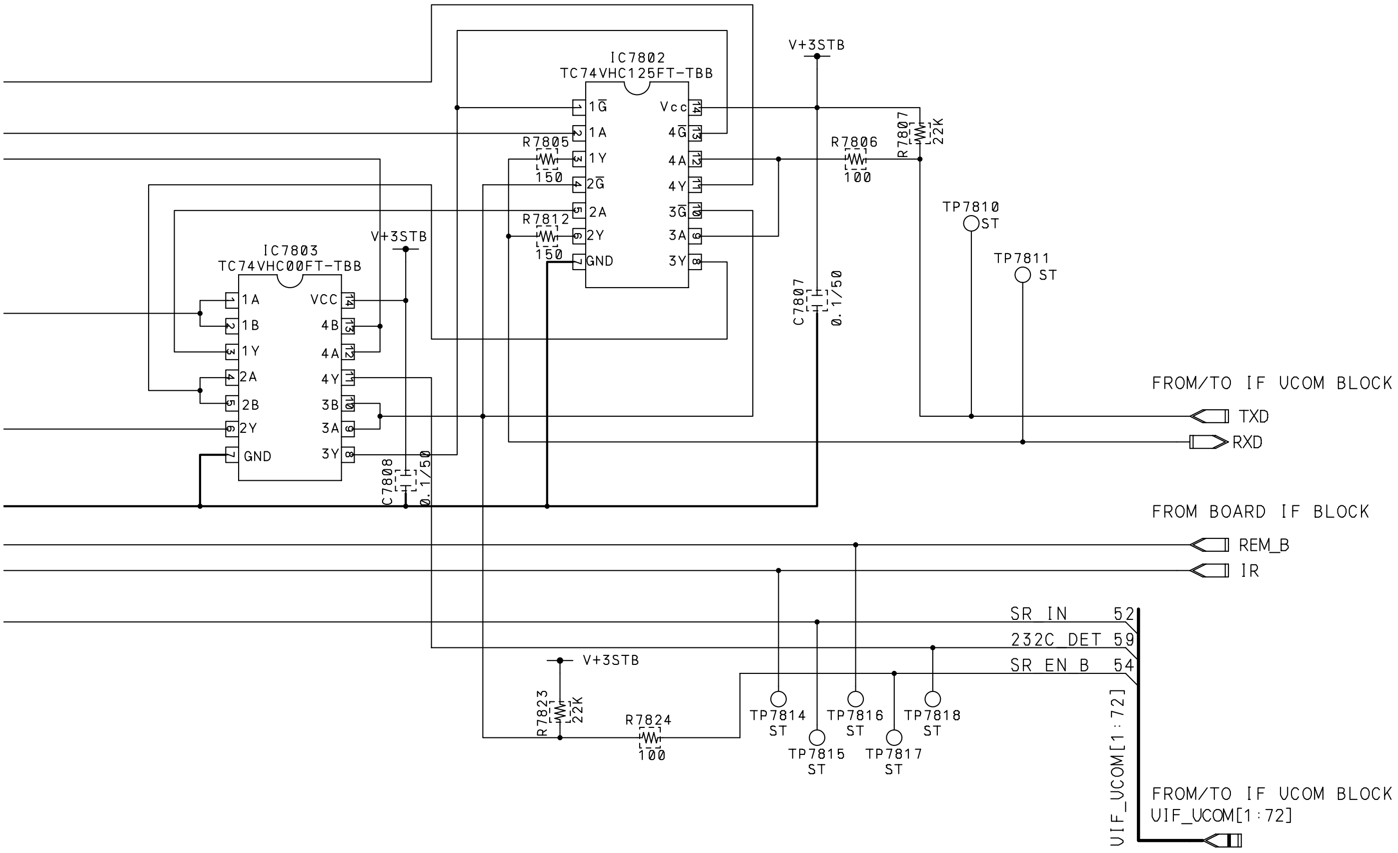


TP9468
JA9451
RKN1004-
IR
TP9469
TP9470
JA9452
RKN1004-
SR_IN
JA9453
AKN1073-
SR_OUT
GND_SR
TP9466 TP9467
TP9471 TP9472 TP9473 TP9474
SR1
CN9452
CKS3826-
12. NC
11. NC
10. TXD_SR4
9. RXD_SR4
8. 5V_STB
7. NC
6. GND
5. REM_B
4. SR_IN
3. GND
2. IR
1. GND
IN
B 8/8
CN7801
CN9453
VNE1949-
TP9475

	USED	VACANT
CN	9452-9453	
JA	9451-9453	

B 8/8 F

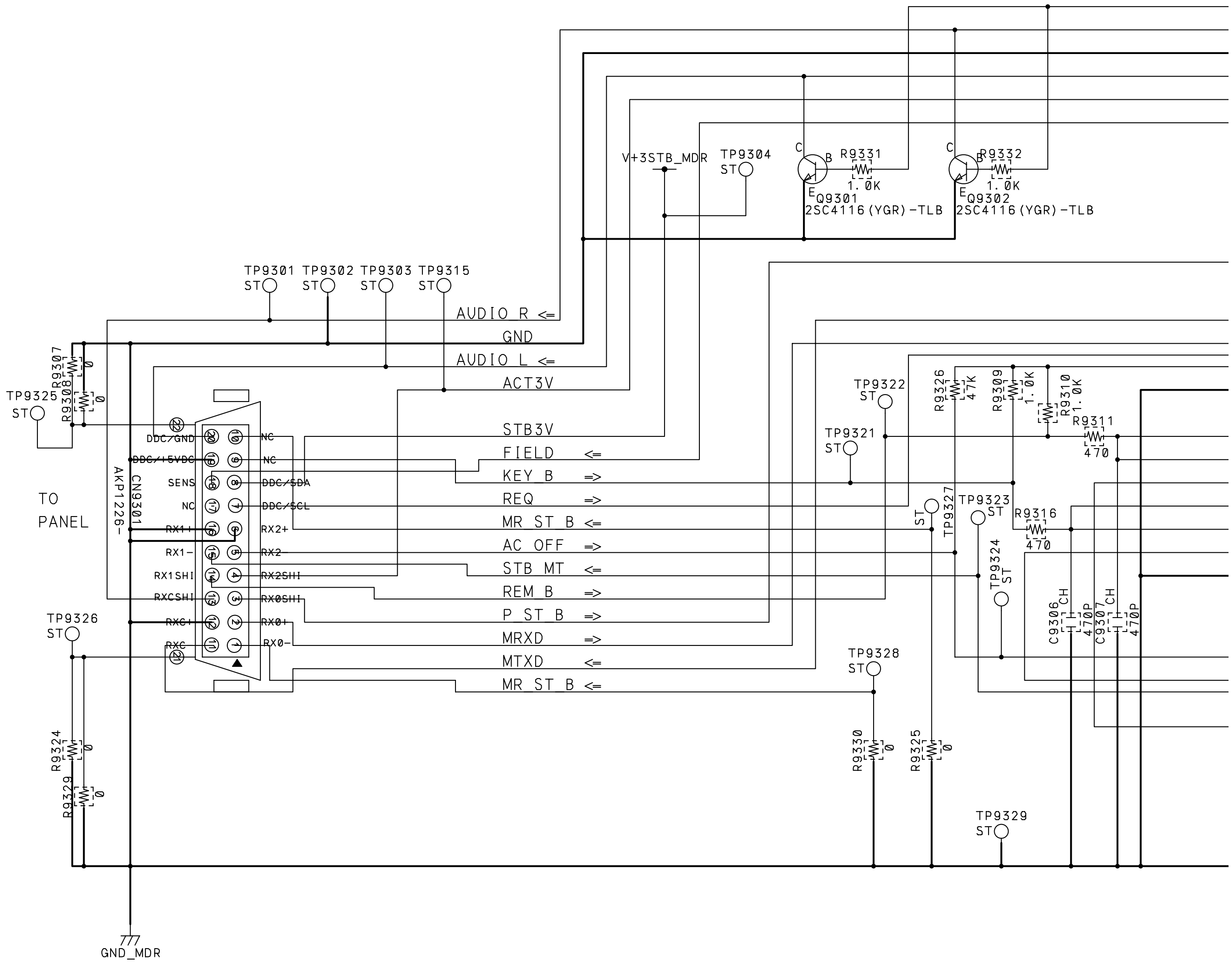
B 8/8 AV BOARD ASSY (PDP-R05U : AWZ6978) (PRO-R05U : AWZ6979)


IC7802
TC74VHC125FT-TBB
1G
1A
1Y
2G
2A
2Y
GND
Vcc
4G
4A
4Y
3G
3A
3Y
R7805
150
R7812
150
V+3STB
R7806
100
R7807
22K
TP7810
ST
TP7811
ST
C7807
0.1/50
IC7803
TC74VHC00FT-TBB
V+3STB
1A
1B
1Y
2A
2B
2Y
GND
VCC
4B
4A
4Y
3B
3A
3Y
C7808
0.1/50
FROM/TO IF UCOM BLOCK
TXD
RXD
FROM BOARD IF BLOCK
REM_B
IR
SR IN 52
232C DET 59
SR EN B 54
V+3STB
R7823
22K
R7824
100
TP7814
ST
TP7815
ST
TP7816
ST
TP7817
ST
TP7818
ST
UIF_UCOM[1:72]
FROM/TO IF UCOM BLOCK
UIF_UCOM[1:72]

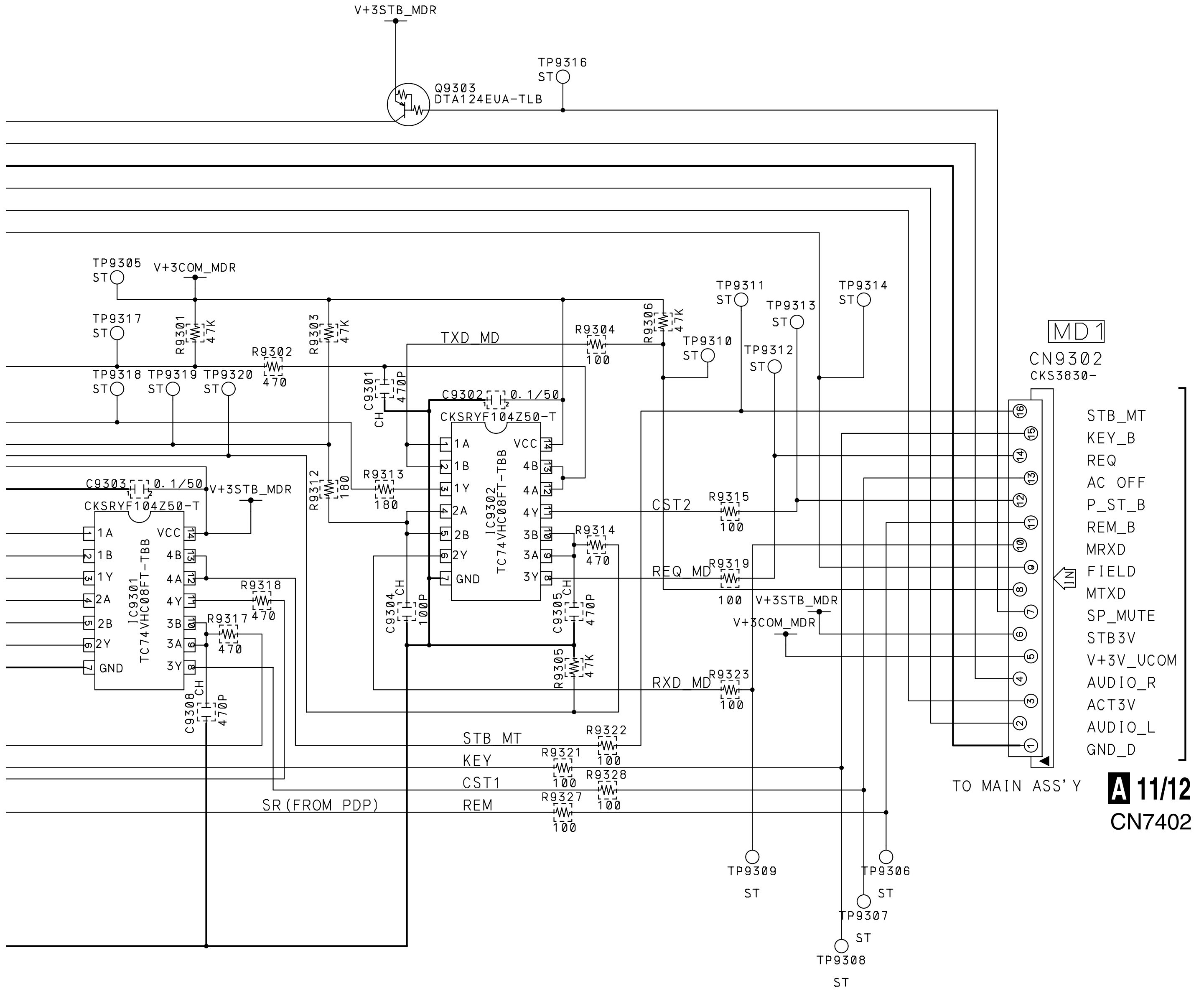
	USED	VACANT
R	7801-7826	
C	7801-7809	
Q	7801-7808	
D	7801-7812	
IC	7801-7803	
CN	7801	
JA	7801	

3.23 MDR ASSY

E MDR ASSY (AWZ6922)

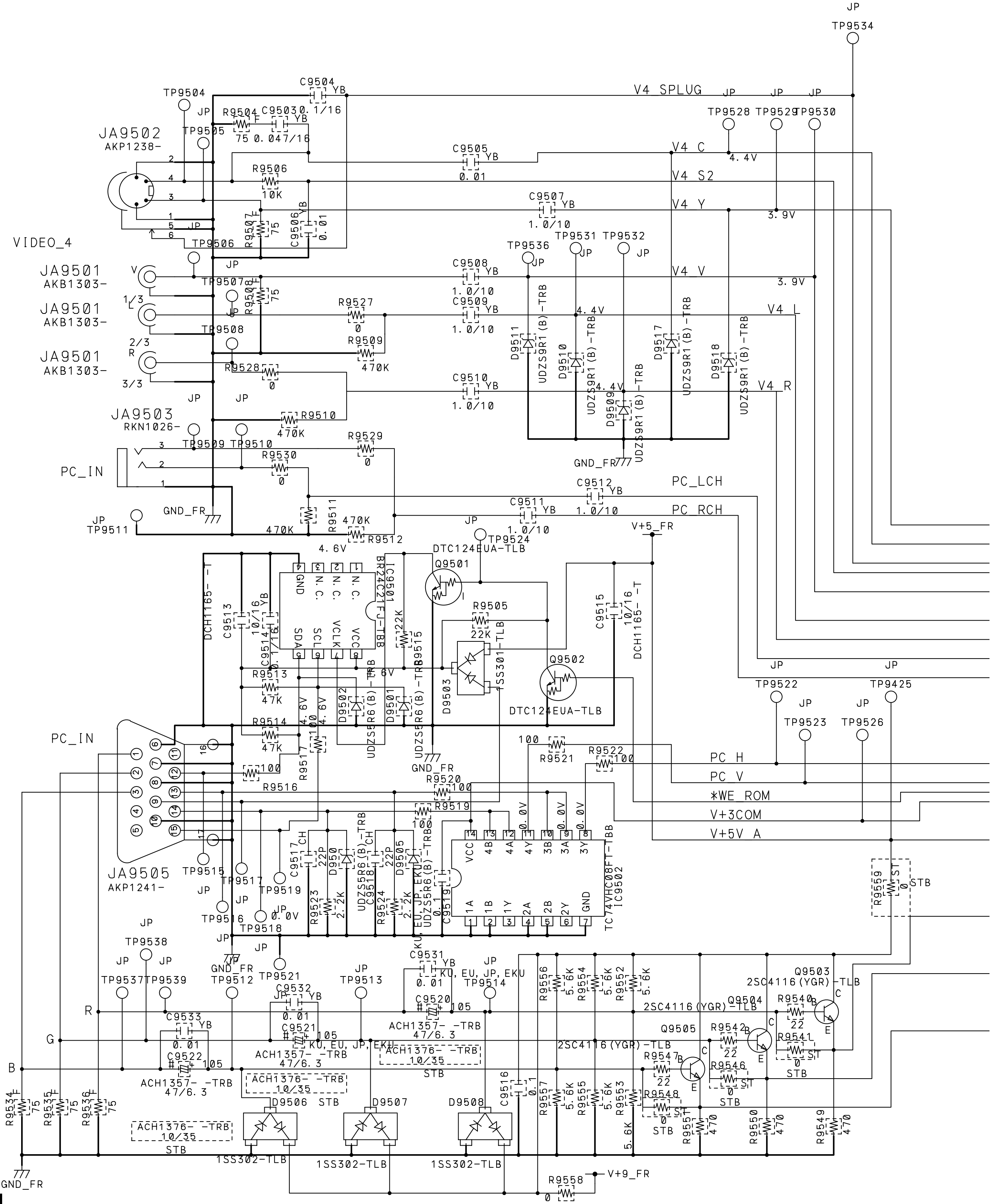

V+3STB_MDR
TP9304 ST
C B R9331 1.0K E Q9301 2SC4116(YGR)-TLB
C B R9332 1.0K E Q9302 2SC4116(YGR)-TLB
TP9301 ST
TP9302 ST
TP9303 ST
TP9315 ST
AUDIO R <=
GND
AUDIO L <=
ACT3V
STB3V
FIELD <=
KEY B =>
REQ =>
MR ST B <=
AC OFF =>
STB MT <=
REM B =>
P ST B =>
MRXD =>
MTXD <=
MR ST B <=
R9307 0
R9308 0
TP9325 ST
TO PANEL
CN9301 AKP1226-
DDC/GND
DDC/+5VDC
SENS
NC
RX1+
RX1-
RX1SHI
RXCSHI
RXC+
RXC
NC
NC
DDC/SDA
DDC/SCL
RX2+
RX2
RX2SHI
RX0SHI
RX0+
RX0-
TP9326 ST
R9324 0
R9329 0
GND_MDR
TP9322 ST
TP9321 ST
R9326 47K
R9309 1.0K
R9310 1.0K
R9311 470
TP9327 ST
TP9323 ST
R9316 470
TP9324 ST
C9306 470P CH
C9307 470P CH
TP9328 ST
R9330 0
R9325 0
TP9329 ST

	USED	VACANT (AWZ6922)
R	9301-9330	9320
C	9301-9308	
Q	9301-9303	
D		
IC	9301-9302	
CN	9301-9302	

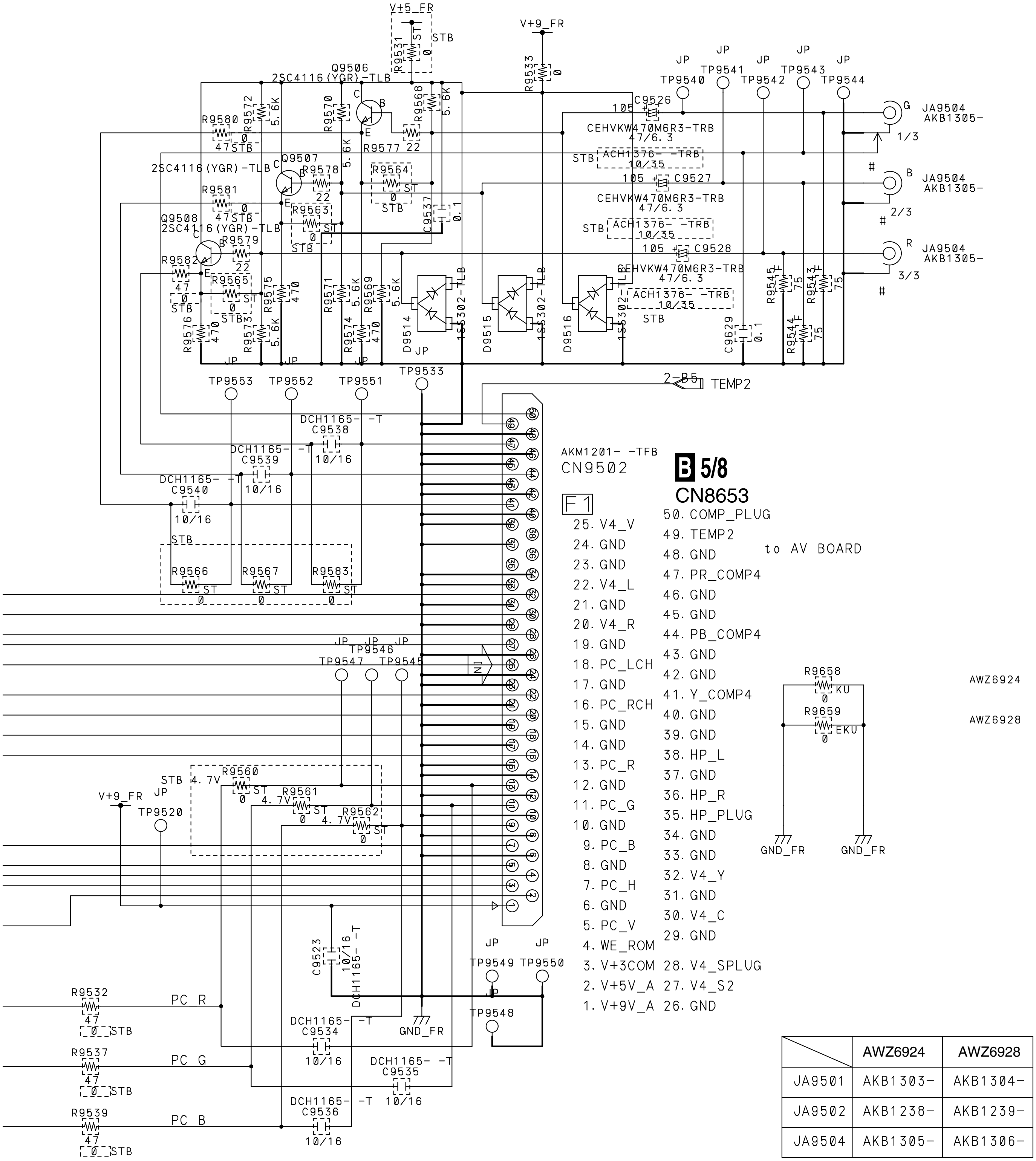


V+3STB_MDR
TP9316
ST
Q9303
DTA124EUA-TLB
TP9305
ST
V+3COM_MDR
TP9311
ST
TP9314
ST
TP9313
ST
TP9317
ST
R9301
47K
R9303
47K
R9306
47K
R9304
100
TXD_MD
TP9310
ST
TP9312
ST
MD1
CN9302
CKS3830-
R9302
470
TP9318
ST
TP9319
ST
TP9320
ST
C9301
CH
470P
C9302
0.1/50
CKSRYF104Z50-T
IC9302
TC74VHC08FT-TBB
1A
1B
1Y
2A
2B
2Y
GND
VCC
4B
4A
4Y
3B
3A
3Y
R9312
180
R9313
180
C9303
0.1/50
V+3STB_MDR
CKSRYF104Z50-T
IC9301
TC74VHC08FT-TBB
1A
1B
1Y
2A
2B
2Y
GND
VCC
4B
4A
4Y
3B
3A
3Y
R9318
470
R9317
470
C9308
CH
470P
C9304
CH
100P
C9305
CH
470P
R9305
47K
R9314
470
CST2
R9315
100
REQ_MD
R9319
100
V+3STB_MDR
V+3COM_MDR
RXD_MD
R9323
100
STB_MT
R9322
100
KEY
R9321
100
CST1
R9328
100
SR(FROM PDP)
REM
R9327
100
TP9309
ST
TP9306
ST
TP9307
ST
TP9308
ST
16 STB_MT
15 KEY_B
14 REQ
13 AC OFF
12 P_ST_B
11 REM_B
10 MRXD
9 FIELD
8 MTXD
7 SP_MUTE
6 STB3V
5 V+3V_UCOM
4 AUDIO_R
3 ACT3V
2 AUDIO_L
1 GND_D
IN
TO MAIN ASS'Y
A 11/12
CN7402

3.24 FRONT ASSY


JP
TP9534
V4 SPLUG
TP9504
C9504
YB
0.1/16
JP
R9504
F
75
C9503
YB
0.047/16
TP9505
JA9502
AKP1238-
TP9528
TP9529
TP9530
V4 C
4.4V
C9505
YB
0.01
R9506
10K
V4 S2
V4 Y
C9507
YB
1.0/10
3.9V
R9507
F
75
C9506
YB
0.01
VIDEO_4
TP9506
TP9531
TP9532
TP9536
JA9501
AKB1303-
V
L
R
1/3
2/3
3/3
TP9507
R9508
F
75
C9508
YB
1.0/10
V4 V
3.9V
R9527
0
C9509
YB
1.0/10
4.4V
V4 L
TP9508
R9509
470K
D9511
UDZS9R1(B)-TRB
D9510
UDZS9R1(B)-TRB
D9517
UDZS9R1(B)-TRB
D9518
UDZS9R1(B)-TRB
D9509
UDZS9R1(B)-TRB
R9528
0
C9510
YB
1.0/10
4.4V
V4 R
JA9503
RKN1026-
TP9509
TP9510
R9510
470K
R9529
0
R9530
0
PC_IN
GND_FR
C9512
YB
1.0/10
PC_LCH
C9511
YB
1.0/10
PC RCH
TP9511
R9511
470K
470K
R9512
V+5_FR
4.6V
TP9524
DTC124EUA-TLB
Q9501
IC9501
BR24C21FJ-TBB
GND
N.C.
SDA
SCL
VCLK
VCC
C9513
C9514
10/16
0.1/16
DCH1165- -T
R9515
22K
R9505
22K
D9503
1SS301-TLB
C9515
10/16
DCH1165- -T
Q9502
DTC124EUA-TLB
R9513
47K
4.6V
D9502
UDZS5R6(B)-TRB
D9501
UDZS5R6(B)-TRB
TP9522
TP9425
TP9523
TP9526
R9514
47K
R9517
100
R9521
100
R9522
100
PC H
PC V
*WE ROM
V+3COM
V+5V A
R9516
100
R9520
100
R9519
100
JA9505
AKP1241-
TP9515
TP9517
TP9519
C9517
CH
22P
D9504
UDZS5R6(B)-TRB
C9518
CH
22P
D9505
UDZS5R6(B)-TRB
EU,JP,EKU
C9519
0.1
0.0V
IC9502
TC74VHC08FT-TBB
VCC
4B
4A
4Y
3B
3A
3Y
1A
1B
1Y
2A
2B
2Y
GND
R9523
2.2K
R9524
2.2K
R9559
0
ST
STB
TP9516
TP9518
TP9538
TP9537
TP9539
TP9512
TP9521
C9532
YB
0.01
TP9513
C9531
YB
0.01
KU,EU,JP,EKU
TP9514
R9556
5.6K
R9554
5.6K
R9552
5.6K
Q9503
2SC4116(YGR)-TLB
Q9504
2SC4116(YGR)-TLB
Q9505
2SC4116(YGR)-TLB
C9533
YB
0.01
C9521
105
C9520
105
ACH1357- -TRB
47/6.3
C9522
105
ACH1376- -TRB
10/35
STB
R9540
22
R9542
22
R9541
0
ST
R9547
22
R9546
0
ST
R9548
0
ST
C9516
0.1
R9557
5.6K
R9555
5.6K
R9553
5.6K
R9551
470
R9550
470
R9549
470
R9534
F
75
R9535
F
75
R9536
F
75
D9506
D9507
D9508
1SS302-TLB
R9558
0
V+9_FR
GND_FR

G FRONT ASSY (PDP-R05U : AWZ6924)
(PRO-R05U : AWZ6928)

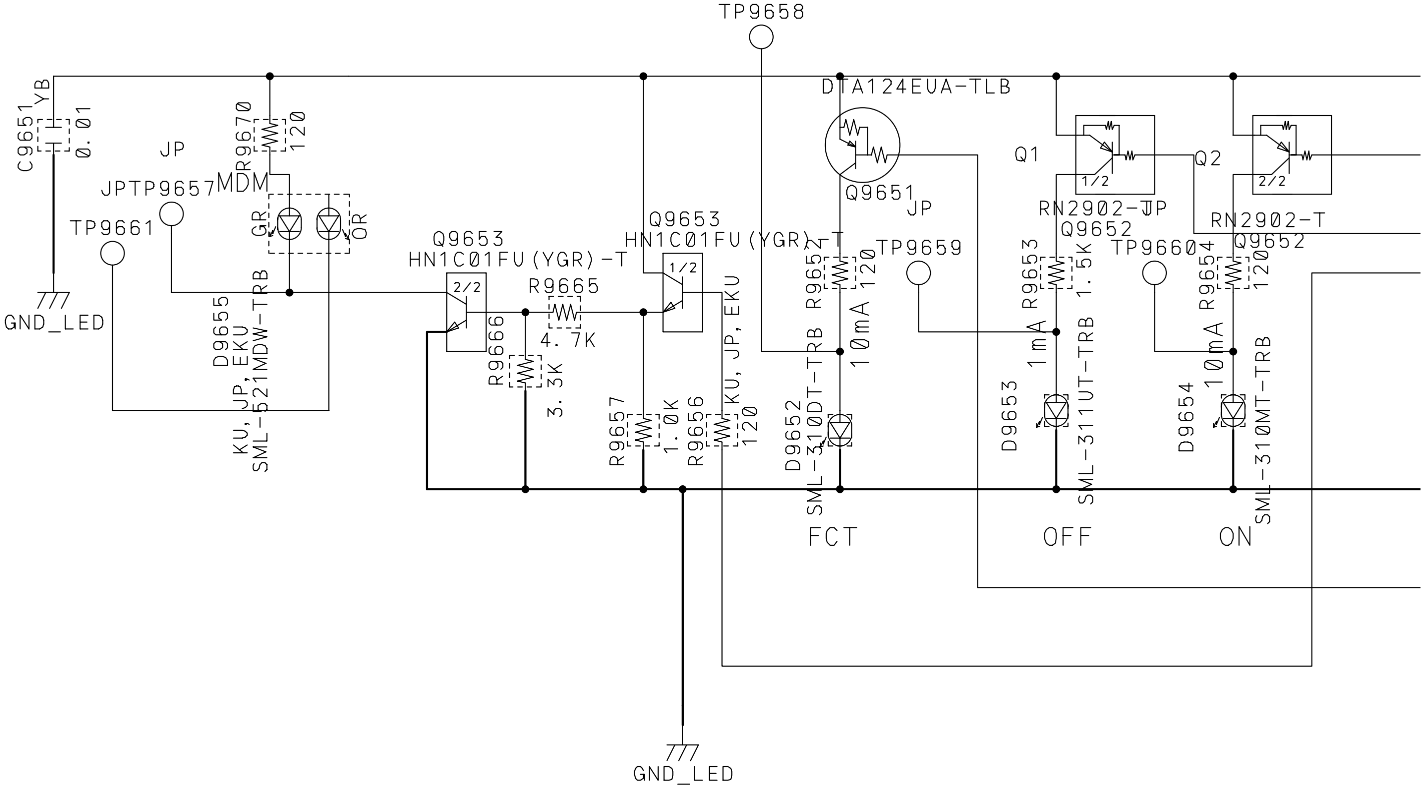

V+5_FR
R9531 ST 0 STB
V+9_FR
R9533 0
Q9506
2SC4116(YGR)-TLB
Q9507
2SC4116(YGR)-TLB
Q9508
2SC4116(YGR)-TLB
R9580 0 47 STB
R9572 5.6K
R9570 5.6K
R9568 5.6K
R9577 22
R9578 22
R9564 0 ST STB
R9581 0 47 STB
R9563 0 ST STB
C9537 0.1
R9579 22
R9582 47 0 STB
R9565 0 ST STB
R9575 470
R9571 5.6K
R9569 5.6K
R9576 470
R9573 5.6K
R9574 470
D9514 1SS302-TLB
D9515 1SS302-TLB
D9516 1SS302-TLB
JP TP9540
JP TP9541
JP TP9542
JP TP9543
JP TP9544
105 C9526
CEHVKW470M6R3-TRB 47/6.3
STB ACH1376- -TRB 10/35
105 C9527
CEHVKW470M6R3-TRB 47/6.3
STB ACH1376- -TRB 10/35
105 C9528
CEHVKW470M6R3-TRB 47/6.3
ACH1376- -TRB 10/35 STB
R9545 75 F
R9543 75 F
R9544 75 F
C9629 0.1
G JA9504 AKB1305- 1/3
B JA9504 AKB1305- 2/3
R JA9504 AKB1305- 3/3
JP TP9553
JP TP9552
TP9551
JP TP9533
2-B5 TEMP2
DCH1165- -T C9538 10/16
DCH1165- -T C9539 10/16
DCH1165- -T C9540 10/16
STB
R9566 ST 0
R9567 ST 0
R9583 ST 0
AKM1201- -TFB
CN9502
F1
B 5/8
CN8653
to AV BOARD
JP JP JP
TP9546
TP9547 TP9545
IN
STB 4.7V R9560 ST 0
R9561 4.7V ST 0
R9562 4.7V ST 0
V+9_FR JP TP9520
C9523 10/16 DCH1165- -T
JP TP9549
JP TP9550
JP TP9548
GND_FR
R9532 47 0 STB PC R
R9537 47 0 STB PC G
R9539 47 0 STB PC B
DCH1165- -T C9534 10/16
DCH1165- -T C9535 10/16
DCH1165- -T C9536 10/16
R9658 0 KU
R9659 0 EKU
AWZ6924
AWZ6928
GND_FR GND_FR
25. V4_V
24. GND
23. GND
22. V4_L
21. GND
20. V4_R
19. GND
18. PC_LCH
17. GND
16. PC_RCH
15. GND
14. GND
13. PC_R
12. GND
11. PC_G
10. GND
9. PC_B
8. GND
7. PC_H
6. GND
5. PC_V
4. WE_ROM
3. V+3COM
2. V+5V_A
1. V+9V_A
50. COMP_PLUG
49. TEMP2
48. GND
47. PR_COMP4
46. GND
45. GND
44. PB_COMP4
43. GND
42. GND
41. Y_COMP4
40. GND
39. GND
38. HP_L
37. GND
36. HP_R
35. HP_PLUG
34. GND
33. GND
32. V4_Y
31. GND
30. V4_C
29. GND
28. V4_SPLUG
27. V4_S2
26. GND

	AWZ6924	AWZ6928
JA9501	AKB1303-	AKB1304-
JA9502	AKB1238-	AKB1239-
JA9504	AKB1305-	AKB1306-

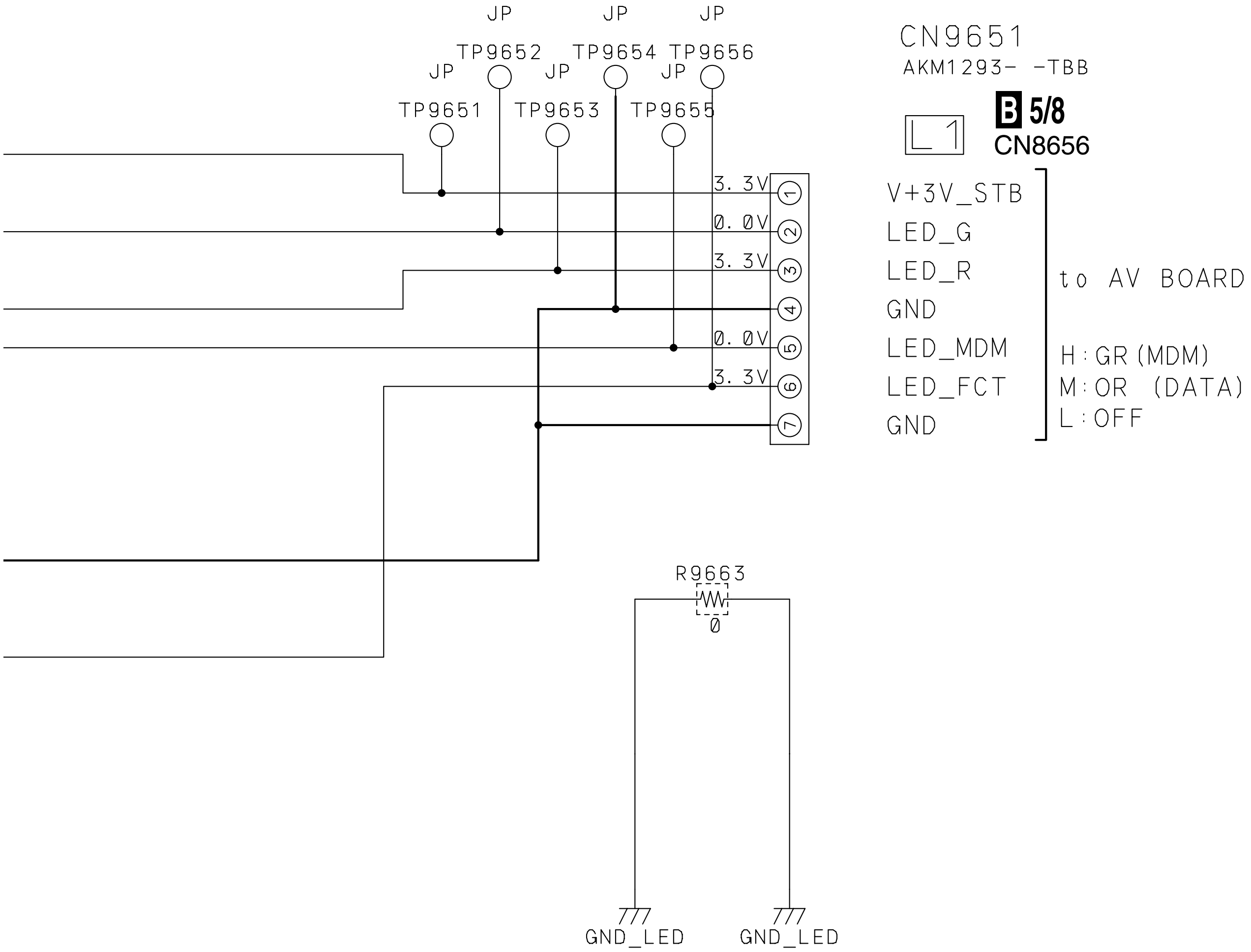
ITEM	USED	VACANT
R	9501-9583 9651, 9658-9661	9531, 9541, 9548, 9559-9567, 9538
C	9501-9540	
Q	9501-9508	
D	9501-9518	
IC	9501-9502	
CN	9502-9503	
JA	9501-9505	

3.25 LED ASSY

H LED ASSY (AWZ6925)


TP9658
C9651 YB
0.01
R9670
120
JP
JPTP9657
MDM
GR
OR
TP9661
GND_LED
D9655
KU, JP, EKU
SML-521MDW-TRB
Q9653
HN1C01FU(YGR)-T
2/2
R9665
4.7K
R9666
3.3K
Q9653
HN1C01FU(YGR)-T
1/2
R9657
1.0K
R9656
KU, JP, EKU
120
DTA124EUA-TLB
Q9651
JP
R9652
120
10mA
D9652
SML-310DT-TRB
FCT
TP9659
Q1
1/2
RN2902-JP
Q9652
R9653
1.5K
1mA
D9653
SML-311UT-TRB
OFF
TP9660
Q2
2/2
RN2902-T
Q9652
R9654
120
10mA
D9654
SML-310MT-TRB
ON
GND_LED

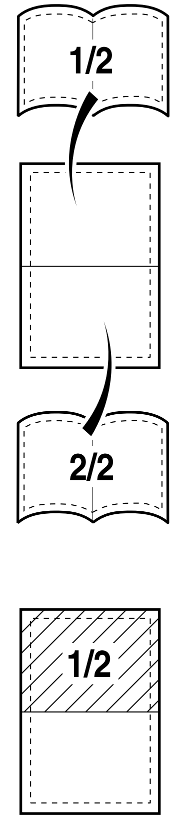
ITEM	USED	VACANT
R	9652-9671	9658-9661
C	9651, 9652	
Q	9651-9654	
D	9652-9655	
IC		
CN	9651	

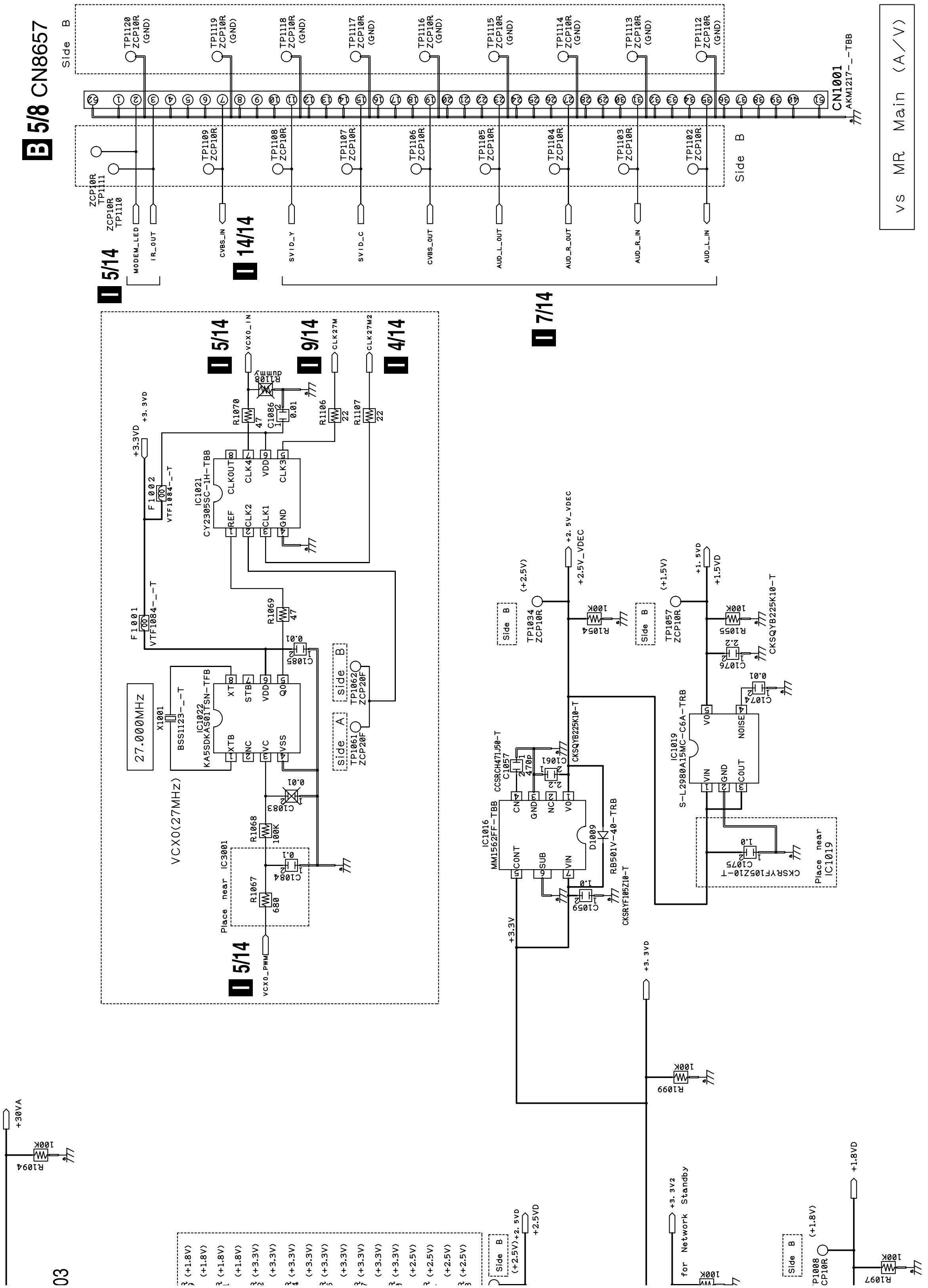

JP
JP
JP
TP9652
TP9654
TP9656
JP
JP
JP
TP9651
TP9653
TP9655
CN9651
AKM1293- -TBB
L1
B 5/8
CN8656
3.3V
0.0V
3.3V
0.0V
3.3V
1
2
3
4
5
6
7
V+3V_STB
LED_G
LED_R
GND
LED_MDM
LED_FCT
GND
to AV BOARD
H:GR (MDM)
M:OR (DATA)
L:OFF
R9663
0
GND_LED
GND_LED

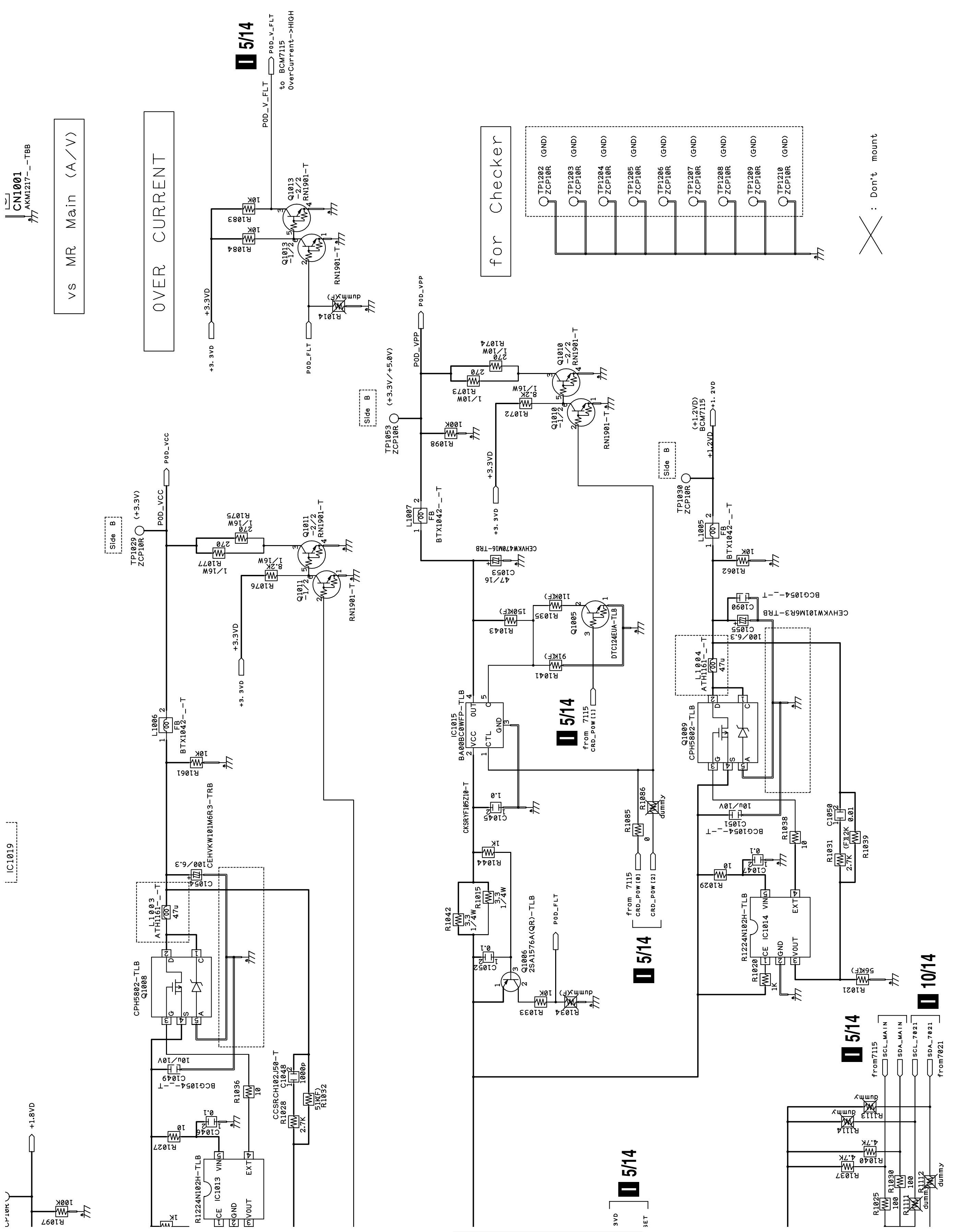
3.26 TUNER BOARD ASSY (1/14)

I 1/14 TUNER BOARD ASSY (AWE1300)

Large size SCH diagram




B 5/8 CN8657
Side B
TP1120 ZCP10R (GND)
TP1119 ZCP10R (GND)
TP1118 ZCP10R (GND)
TP1117 ZCP10R (GND)
TP1116 ZCP10R (GND)
TP1115 ZCP10R (GND)
TP1114 ZCP10R (GND)
TP1113 ZCP10R (GND)
TP1112 ZCP10R (GND)
CN1001
AKM1217-_-TBB
vs MR Main (A/V)
ZCP10R TP1111
ZCP10R TP1110
TP1109 ZCP10R
TP1108 ZCP10R
TP1107 ZCP10R
TP1106 ZCP10R
TP1105 ZCP10R
TP1104 ZCP10R
TP1103 ZCP10R
TP1102 ZCP10R
Side B
MODEM_LED
IR_OUT
CVBS_IN
SVID_Y
SVID_C
CVBS_OUT
AUD_L_OUT
AUD_R_OUT
AUD_R_IN
AUD_L_IN
I 5/14
I 14/14
I 7/14
I 5/14
VCXO_IN
I 9/14
CLK27M
CLK27M2
I 4/14
R1108 dummy
R1070 47
C1086 0.01
R1106 22
R1107 22
+3.3VD
F1002
VTF1084-_-T
IC1021
CY2305SC-1H-TBB
CLKOUT CLK4 VDD CLK3
REF CLK2 CLK1 GND
F1001
VTF1084-_-T
R1069 47
C1085 0.01
IC1022
KA5SDKAS01TSN-TFB
XT STB VDD QO
XTB NC VC VSS
X1001
BSS1123-_-T
27.000MHz
VCXO(27MHz)
side B TP1062 ZCP20F
side A TP1061 ZCP20F
C1083 0.01
R1068 100K
C1084 0.1
R1067 680
Place near IC3001
I 5/14
VCXO_PWM
+2.5V_VDEC
(+2.5V)
Side B
TP1034 ZCP10R
R1054 100K
(+1.5V)
Side B
TP1057 ZCP10R
+1.5VD
R1055 100K
C1076 2.2
CKSQYB225K10-T
C1074 0.01
IC1019
S-L2980A15MC-C6A-TRB
VO NOISE
VIN GND COUT
C1075 1.0
CKSRYF105Z10-T
Place near IC1019
CCSRCH471J50-T
C1057 470p
C1061 2.2
CKSQYB225K10-T
IC1016
MM1562FF-TBB
CN GND NC VO
CONT SUB VIN
D1009
RB501V-40-TRB
C1059 1.0
CKSRYF105Z10-T
+3.3V
+3.3VD
R1099 100K
+30VA
R1094 100K
03
(+1.8V)
(+1.8V)
(+1.8V)
(+1.8V)
(+3.3V)
(+3.3V)
(+3.3V)
(+3.3V)
(+3.3V)
(+3.3V)
(+3.3V)
(+3.3V)
(+2.5V)
(+2.5V)
(+2.5V)
(+2.5V)
Side B
(+2.5V)
+2.5VD
+3.3V2
for Network Standby
100K
+1.8VD
(+1.8V)
Side B
P1008 CP10R
R1097 100K


vs MR Main (A/V)
CN1001
AKM1217-_-TBB
OVER CURRENT
5/14
POD_V_FLT
to BCM7115
OverCurrent->HIGH
Q1013 -2/2 RN1901-T
Q1013 -1/2
RN1901-T
R1083 10K
R1084 10K
R1014 dummy(F)
+3.3VD
POD_FLT
for Checker
TP1202 ZCP10R (GND)
TP1203 ZCP10R (GND)
TP1204 ZCP10R (GND)
TP1205 ZCP10R (GND)
TP1206 ZCP10R (GND)
TP1207 ZCP10R (GND)
TP1208 ZCP10R (GND)
TP1209 ZCP10R (GND)
TP1210 ZCP10R (GND)
: Don't mount
POD_VPP
(+3.3V/+5.0V)
Side B
TP1053 ZCP10R
R1074 270 1/10W
R1073 270 1/10W
R1072 8.2K 1/16W
R1098 100K
Q1010 -2/2 RN1901-T
Q1010 -1/2
RN1901-T
L1007 FB BTX1042-_-T
C1053 47/16
CEHVKW470M16-TRB
(+1.2VD) BCM7115
+1.2VD
TP1030 ZCP10R
L1005 FB BTX1042-_-T
R1062 10K
C1090
BCG1054-_-T
C1055 100/6.3
CEHVKW101M6R3-TRB
L1004 ATH1161-_-T 47u
Q1009 CPH5802-TLB
R1043 150K(F)
R1035 110K(F)
Q1005 DTC124EUA-TLB
R1041 91K(F)
IC1015 BA00BC0WFP-TLB
VCC OUT CTL GND
from 7115 CRD_POW(1)
C1045 1.0
CKSRYF105Z10-T
R1085 0
R1086 dummy
from 7115 CRD_POW(0) CRD_POW(2)
R1044 1K
R1015 3.3 1/4W
R1042 3.3 1/4W
C1052 0.1
Q1006 2SA1576A(QR)-TLB
R1033 10K
R1034 dummy(F)
C1051 10u/10V
BCG1054-_-T
R1038 10
C1050 0.01
R1031 2.7K
R1039 12K(F)
C1047 0.1
R1029 10
IC1014 R1224N102H-TLB
CE VIN GND VOUT EXT
R1020 1K
R1021 56K(F)
10/14
from7115 SCL_MAIN SDA_MAIN
SCL_7021 SDA_7021 from7021
R1113 dummy
R1114 dummy
R1040 4.7K
R1037 4.7K
R1025 100
R1030 100
R1111 dummy
R1112 dummy
POD_VCC
(+3.3V)
TP1029 ZCP10R
R1075 270 1/16W
R1077 270 1/16W
R1076 8.2K 1/16W
Q1011 -2/2 RN1901-T
Q1011 -1/2
RN1901-T
L1006 FB BTX1042-_-T
R1061 10K
C1054 100/6.3
CEHVKW101M6R3-TRB
L1003 ATH1161-_-T 47u
CPH5802-TLB Q1008
C1049 10u/10V
BCG1054-_-T
R1036 10
C1048 1000p
CCSRCH102J50-T
R1028 2.7K
R1032 51K(F)
C1046 0.1
R1027 10
IC1013 R1224N102H-TLB
IC1019
+1.8VD
R1097 100K
1K
3VD
SET

A

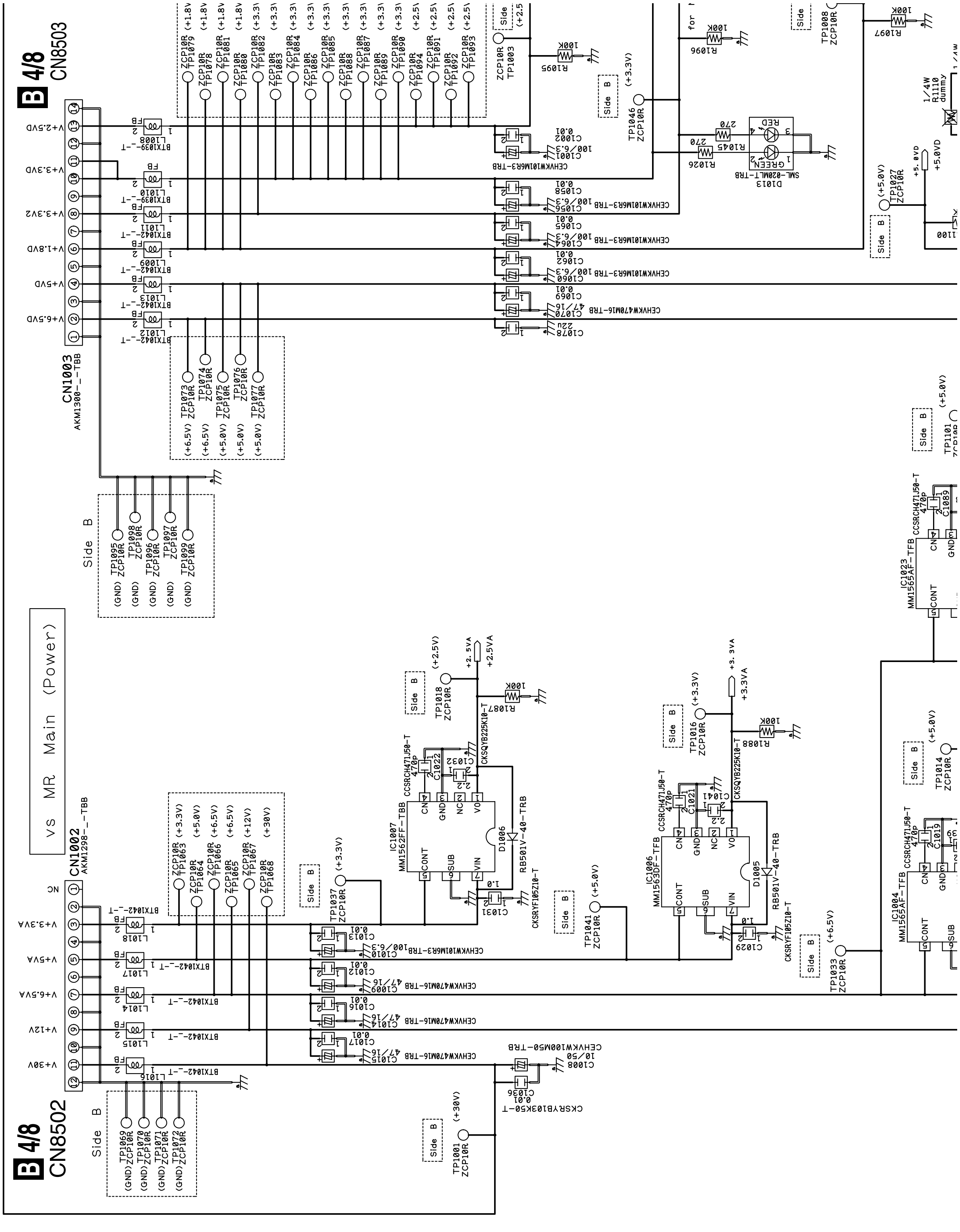
B

C

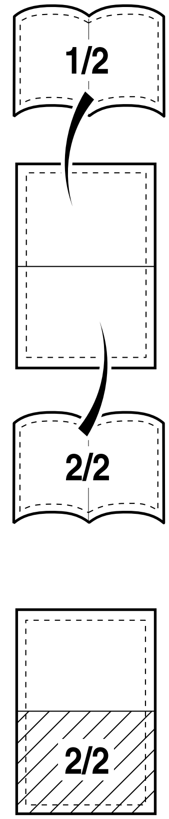
D

E

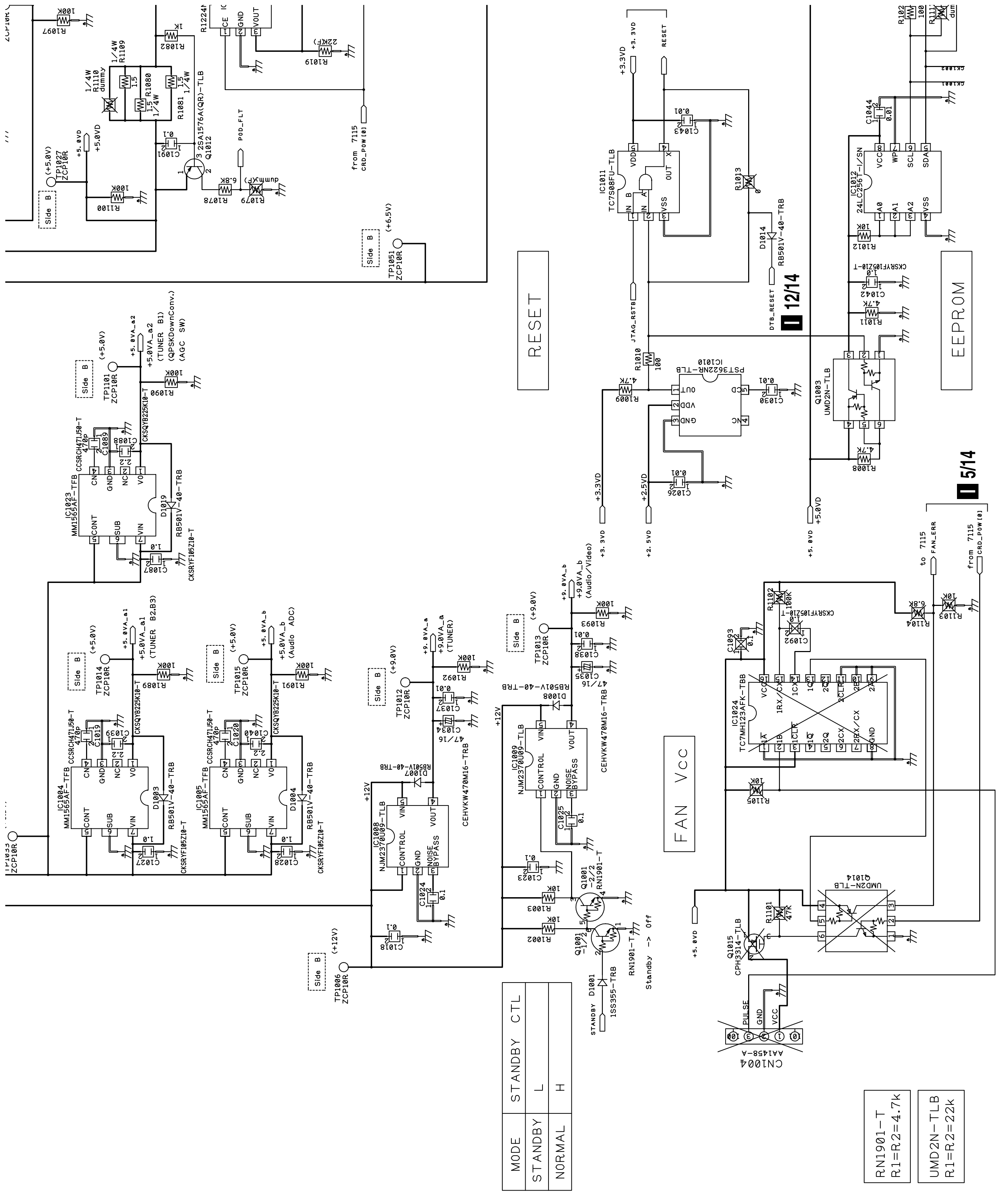
F


B 4/8 CN8503
CN1003 AKM1300-_-TBB
V+2.5VD
V+3.3VD
V+3.3V2
V+1.8VD
V+5VD
V+6.5VD
vs MR Main (Power)
CN1002 AKM1298-_-TBB
NC
V+3.3VA
V+5VA
V+6.5VA
V+12V
V+30V
B 4/8 CN8502
Side B
IC1007 MM1562FF-TBB
IC1006 MM1563DF-TFB
IC1004 MM1565AF-TFB
IC1023 MM1565AF-TFB
D1013 SML-020MLT-TRB
GREEN
RED
D1006 RB501V-40-TRB
D1005 RB501V-40-TRB
+2.5VA
+3.3VA
+5.0VD
R1110 1/4W dummy

Large size SCH diagram



I 1/14


RESET
EEPROM
FAN Vcc
12/14
5/14
IC1011 TC7S08FU-TLB
IC1010 PST3622NR-TLB
IC1012 24LC256T-I/SN
Q1003 UMD2N-TLB
IC1024 TC7MH123AFK-TBB
Q1014 UMD2N-TLB
Q1015 CPH3314-TLB
CN1004 AA1458-A
IC1023 MM1565AF-TFB
IC1004 MM1565AF-TFB
IC1005 MM1565AF-TFB
IC1008 NJM2370U09-TLB
IC1009 NJM2370U09-TLB
Q1001 RN1901-T
Q1012 2SA1576A(QR)-TLB
D1001 1SS355-TRB
STANDBY
Standby -> Off
+5.0VA_a2 (TUNER B1) (QPSKDownConv.) (AGC SW)
+5.0VA_a1 (TUNER B2,B3)
+5.0VA_b (Audio ADC)
+9.0VA_a (TUNER)
+9.0VA_b (Audio/Video)
+3.3VD
+2.5VD
+5.0VD
from 7115 CRD_POW[0]
to 7115 FAN_ERR
DTB_RESET
JTAG_RSTB
PDD_FLT
Side B

MODE	STANDBY CTL
STANDBY	L
NORMAL	H

RN1901-T
R1=R2=4.7k

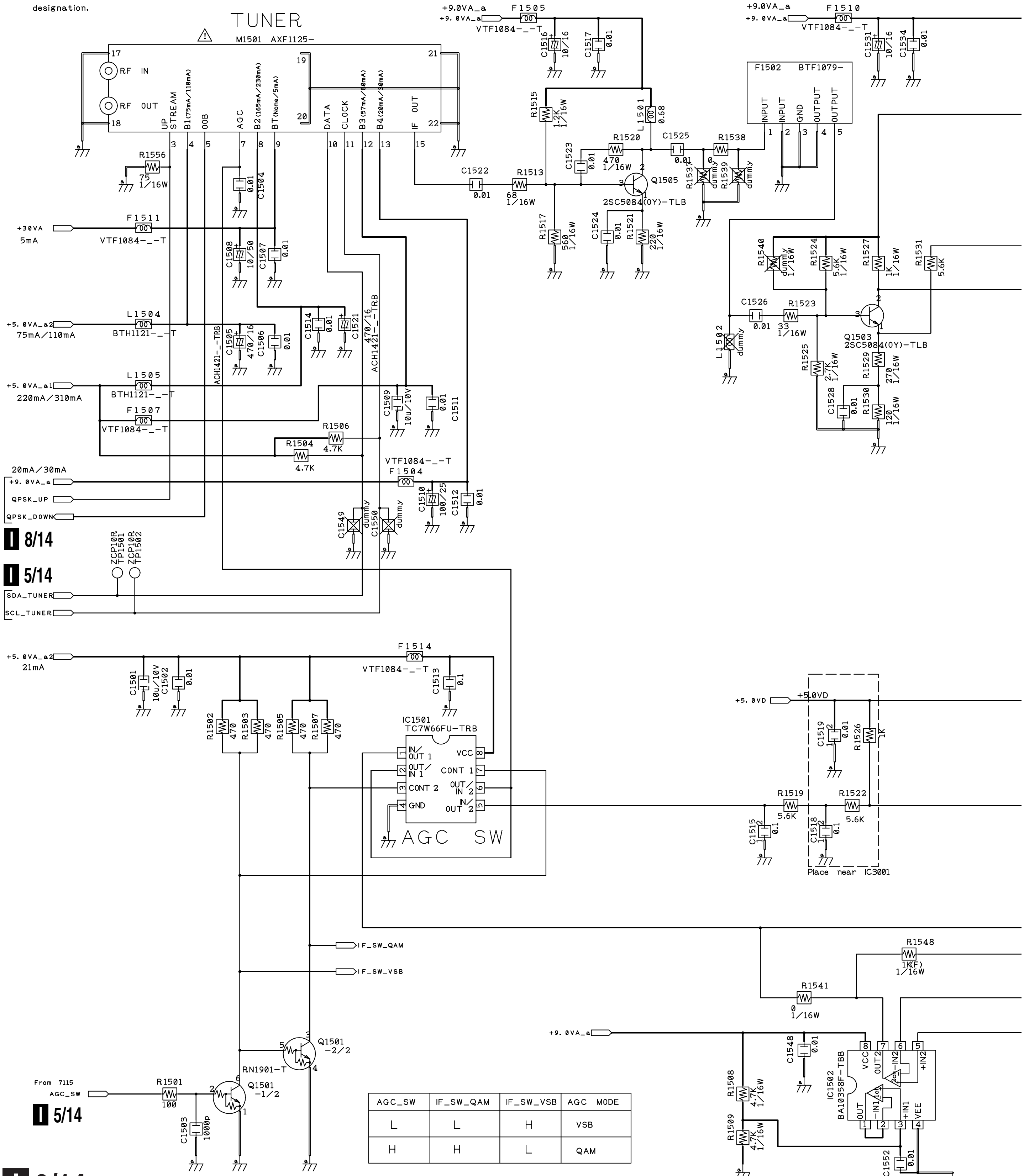
UMD2N-TLB
R1=R2=22k

1/14

3.27 TUNER BOARD ASSY (2/14)

I 2/14 DTV TUNER BOARD ASSY (AWE1300)

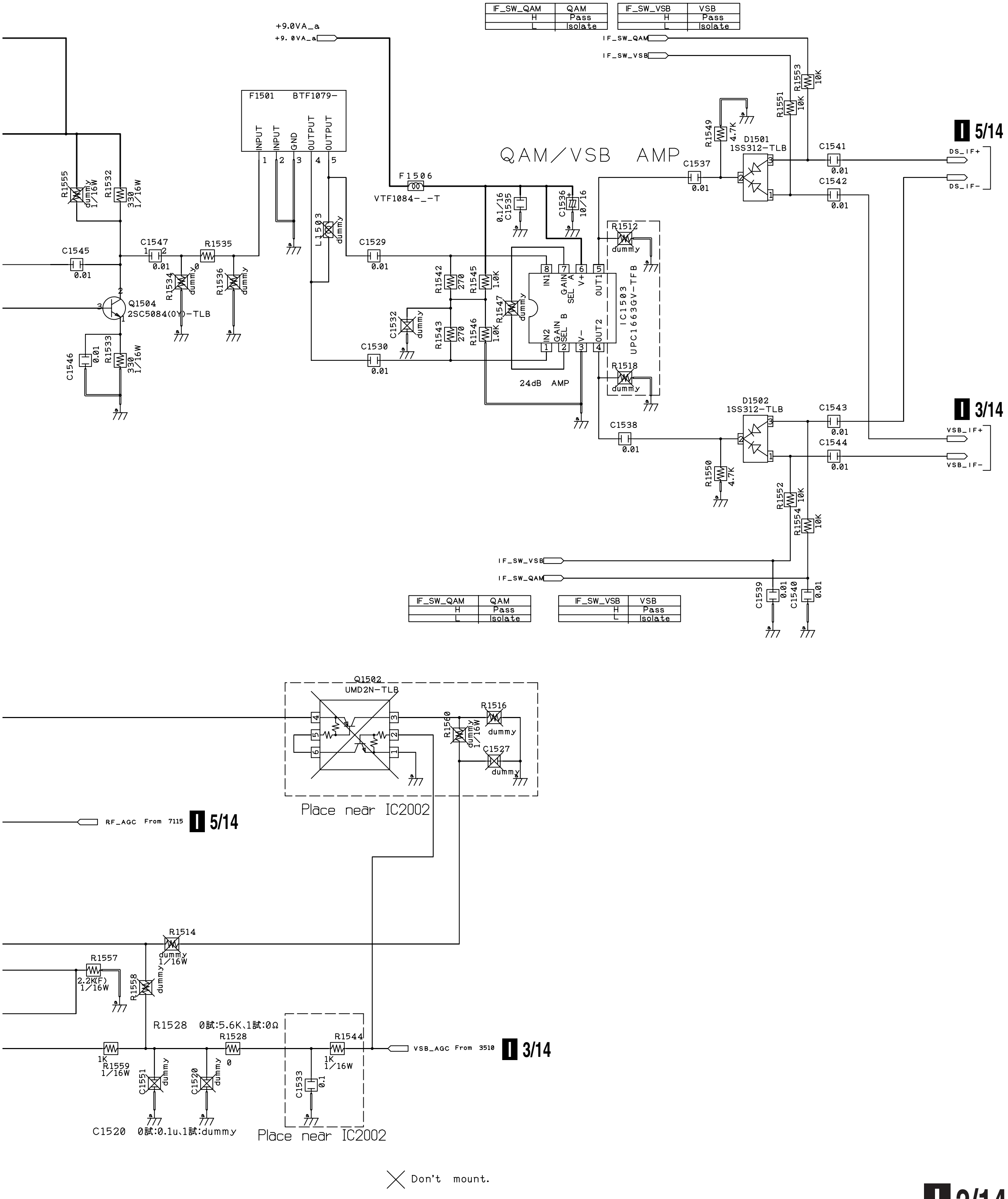
The ⚠ Mark found on some component parts indicates the importance of the safety facter of the parts. Therefore, be sure to use parts of identical designation.



TUNER
⚠ M1501 AXF1125-
RF IN
RF OUT
17
18
19
20
21
22
UP STREAM
B1(75mA/110mA)
OOB
AGC
B2(165mA/230mA)
BT(None/5mA)
DATA
CLOCK
B3(57mA/80mA)
B4(20mA/30mA)
IF OUT
3
4
5
7
8
9
10
11
12
13
15
R1556 75 1/16W
+30VA 5mA
F1511 VTF1084-_-T
C1504 0.01
C1508 10/50
C1507 0.01
+5.0VA_a2 75mA/110mA
L1504 BTH1121-_-T
ACH1421-_-TRB
C1505 470/16
C1506 0.01
C1514 0.01
C1521 470/16
ACH1421-_-TRB
+5.0VA_a1 220mA/310mA
L1505 BTH1121-_-T
F1507 VTF1084-_-T
C1509 10u/10V
C1511 0.01
R1506 4.7K
R1504 4.7K
20mA/30mA
+9.0VA_a
QPSK_UP
QPSK_DOWN
VTF1084-_-T F1504
C1510 100/25
C1512 0.01
C1549 dummy
C1550 dummy
I 8/14
I 5/14
ZCP10R TP1501
ZCP10R TP1502
SDA_TUNER
SCL_TUNER
+9.0VA_a F1505 VTF1084-_-T
C1516 10/16
C1517 0.01
R1515 1.2K 1/16W
L1501 0.68
C1523 0.01
R1520 470 1/16W
C1525 0.01
R1538
R1537 0 dummy
R1539 dummy
C1522 0.01
R1513 68 1/16W
Q1505 2SC5084(OY)-TLB
R1517 560 1/16W
C1524 0.01
R1521 220 1/16W
+9.0VA_a F1510 VTF1084-_-T
C1531 10/16
C1534 0.01
F1502 BTF1079-
INPUT
INPUT
GND
OUTPUT
OUTPUT
1 2 3 4 5
R1540 dummy 1/16W
R1524 5.6K 1/16W
R1527 1K 1/16W
R1531 5.6K
C1526 0.01
R1523 33 1/16W
Q1503 2SC5084(OY)-TLB
L1502 dummy
R1525 2.7K 1/16W
R1529 270 1/16W
C1528 0.01
R1530 120 1/16W
+5.0VA_a2 21mA
F1514 VTF1084-_-T
C1501 10u/10V
C1502 0.01
C1513 0.1
R1502 470
R1503 470
R1505 470
R1507 470
IC1501 TC7W66FU-TRB
IN/OUT 1
OUT/IN 1
CONT 2
GND
VCC
CONT 1
OUT/IN 2
IN/OUT 2
AGC SW
+5.0VD
+5.0VD
C1519 0.01
R1526 1K
R1519 5.6K
R1522 5.6K
C1515 0.1
C1518 0.1
Place near IC3001
IF_SW_QAM
IF_SW_VSB
R1548 1K(F) 1/16W
R1541 0 1/16W
+9.0VA_a
C1548 0.01
IC1502 BA10358F-TBB
VCC OUT2 -IN2 +IN2
OUT -IN1 +IN1 VEE
R1508 4.7K 1/16W
R1509 4.7K 1/16W
C1552 0.01
Q1501 -2/2
RN1901-T
Q1501 -1/2
From 7115 AGC_SW
I 5/14
R1501 100
C1503 1000p

AGC_SW	IF_SW_QAM	IF_SW_VSB	AGC MODE
L	L	H	VSB
H	H	L	QAM

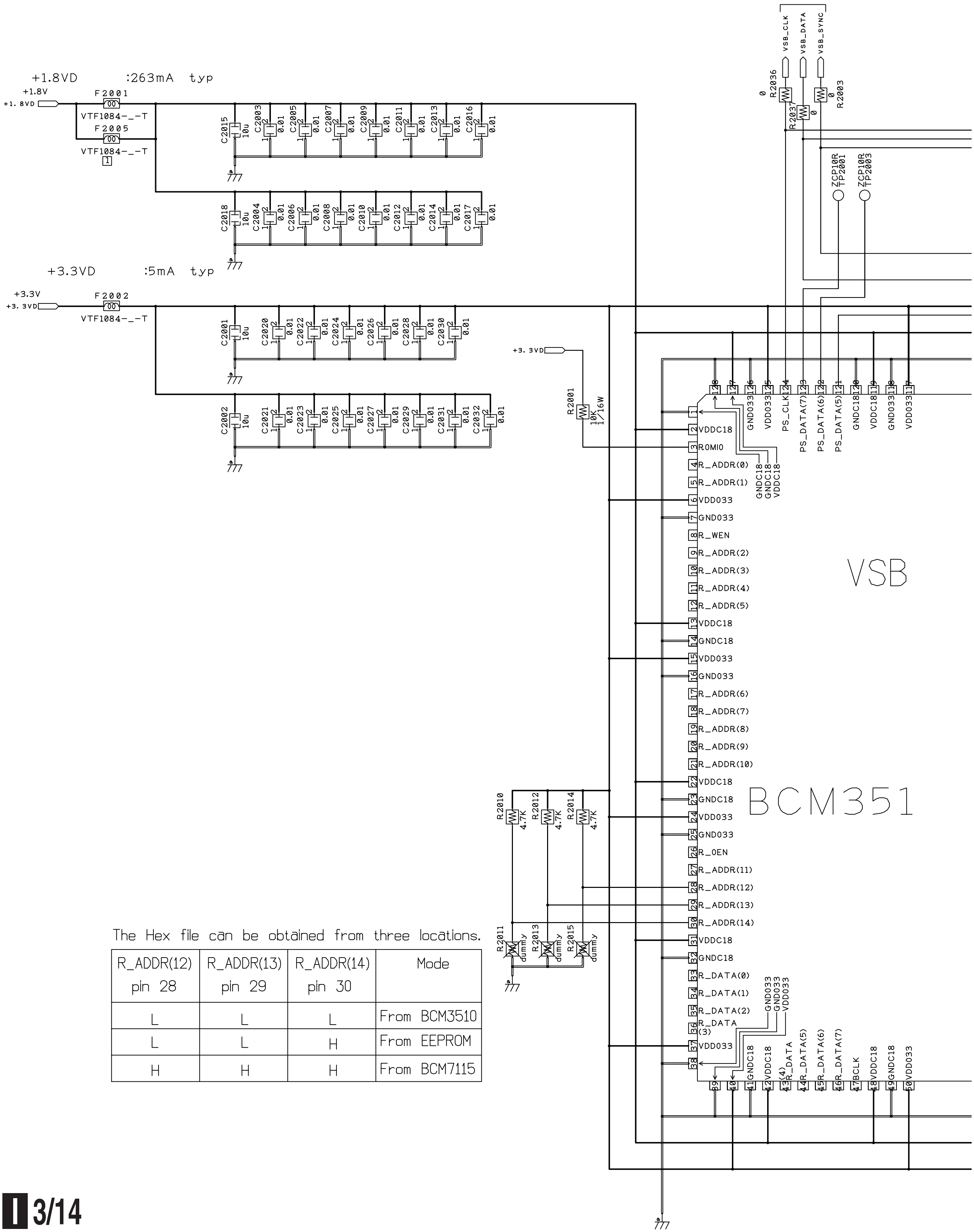
I 2/14


QAM／VSB AMP
IF_SW_QAM | QAM
H | Pass
L | Isolate
IF_SW_VSB | VSB
H | Pass
L | Isolate
+9.0VA_a
IF_SW_QAM
IF_SW_VSB
F1501 BTF1079-
INPUT
INPUT
GND
OUTPUT
OUTPUT
F1506
VTF1084-_-T
R1555 dummy 1/16W
R1532 330 1/16W
C1545 0.01
C1547 0.01
R1535
R1534 dummy
R1536 dummy
L1503 dummy
Q1504 2SC5084(OY)-TLB
C1546 0.01
R1533 330 1/16W
C1529 0.01
C1530 0.01
C1532 dummy
R1542 270
R1543 270
R1545 1.0K
R1546 1.0K
R1547 dummy
C1535 0.1/16
C1536 10/16
IN1
GAIN SEL A
V+
OUT1
IN2
GAIN SEL B
V-
OUT2
IC1503 UPC1663GV-TFB
24dB AMP
R1512 dummy
R1518 dummy
C1537 0.01
C1538 0.01
R1549 4.7K
R1550 4.7K
D1501 1SS312-TLB
D1502 1SS312-TLB
R1551 10K
R1553 10K
R1552 10K
R1554 10K
C1541 0.01
C1542 0.01
C1543 0.01
C1544 0.01
C1539 0.01
C1540 0.01
DS_IF+
DS_IF-
VSB_IF+
VSB_IF-
5/14
3/14
Q1502 UMD2N-TLB
R1560 dummy 1/16W
R1516 dummy
C1527 dummy
Place near IC2002
RF_AGC From 7115
5/14
R1514 dummy 1/16W
R1557 2.2K(F) 1/16W
R1558 dummy
R1528 0試:5.6K､1試:0Ω
R1528 0
R1544 1K 1/16W
R1559 1K 1/16W
C1551 dummy
C1520 dummy
C1533 0.1
VSB_AGC From 3510
3/14
C1520 0試:0.1u､1試:dummy
Place near IC2002
Don't mount.

2/14

3.28 TUNER BOARD ASSY (3/14)

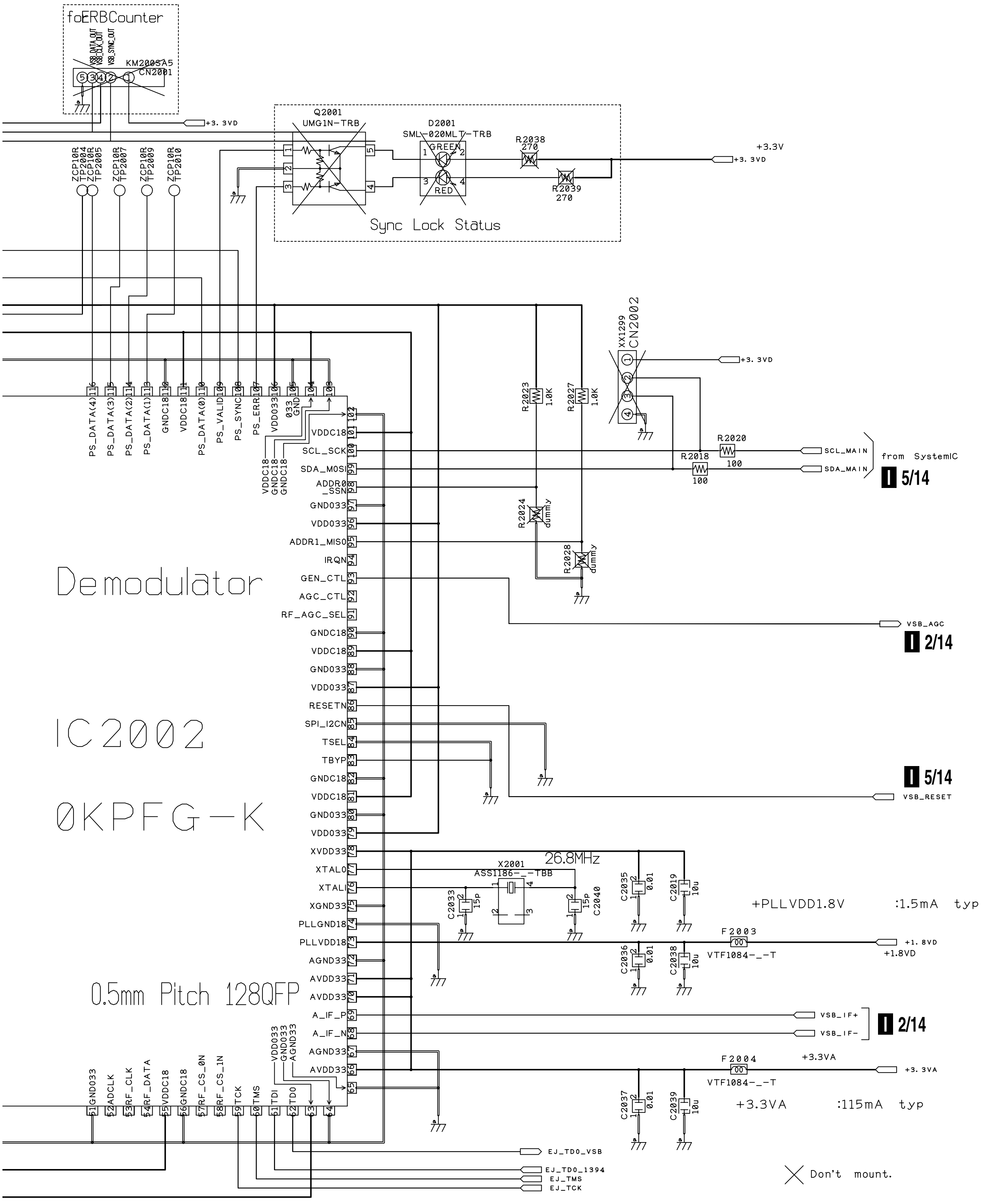
3/14 DTV TUNER BOARD ASSY (AWE1300)


5/14
VSB_CLK
VSB_DATA
VSB_SYNC
R2036 0
R2037 0
R2003 0
ZCP10R TP2001
ZCP10R TP2003
+1.8VD :263mA typ
+1.8V
+1.8VD
F2001
VTF1084-_-T
F2005
VTF1084-_-T
C2015 10u
C2003 0.01
C2005 0.01
C2007 0.01
C2009 0.01
C2011 0.01
C2013 0.01
C2016 0.01
C2018 10u
C2004 0.01
C2006 0.01
C2008 0.01
C2010 0.01
C2012 0.01
C2014 0.01
C2017 0.01
+3.3VD :5mA typ
+3.3V
+3.3VD
F2002
VTF1084-_-T
C2001 10u
C2020 0.01
C2022 0.01
C2024 0.01
C2026 0.01
C2028 0.01
C2030 0.01
C2002 10u
C2021 0.01
C2023 0.01
C2025 0.01
C2027 0.01
C2029 0.01
C2031 0.01
C2032 0.01
+3.3VD
R2001 10K 1/16W
R2010 4.7K
R2012 4.7K
R2014 4.7K
R2011 dummy
R2013 dummy
R2015 dummy
VSB
BCM351
128 127 GNDC18
126 GND033
125 VDD033
124 PS_CLK
123 PS_DATA(7)
122 PS_DATA(6)
121 PS_DATA(5)
120 GNDC18
119 VDDC18
118 GND033
117 VDD033
GNDC18
GNDC18
VDDC18
1
2 VDDC18
3 ROMIO
4 R_ADDR(0)
5 R_ADDR(1)
6 VDD033
7 GND033
8 R_WEN
9 R_ADDR(2)
10 R_ADDR(3)
11 R_ADDR(4)
12 R_ADDR(5)
13 VDDC18
14 GNDC18
15 VDD033
16 GND033
17 R_ADDR(6)
18 R_ADDR(7)
19 R_ADDR(8)
20 R_ADDR(9)
21 R_ADDR(10)
22 VDDC18
23 GNDC18
24 VDD033
25 GND033
26 R_OEN
27 R_ADDR(11)
28 R_ADDR(12)
29 R_ADDR(13)
30 R_ADDR(14)
31 VDDC18
32 GNDC18
33 R_DATA(0)
34 R_DATA(1)
35 R_DATA(2)
36 R_DATA(3)
37 VDD033
38
GND033
GND033
VDD033
39
40
41 GNDC18
42 VDDC18
43 R_DATA(4)
44 R_DATA(5)
45 R_DATA(6)
46 R_DATA(7)
47 BCLK
48 VDDC18
49 GNDC18
50 VDD033

The Hex file can be obtained from three locations.

R_ADDR(12) pin 28	R_ADDR(13) pin 29	R_ADDR(14) pin 30	Mode
L	L	L	From BCM3510
L	L	H	From EEPROM
H	H	H	From BCM7115

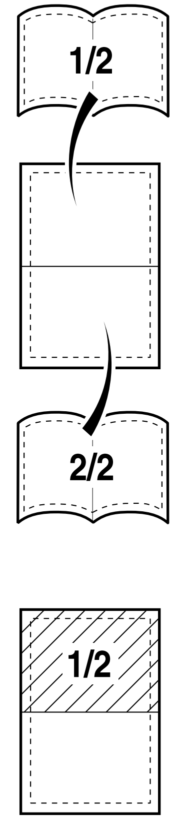
3/14

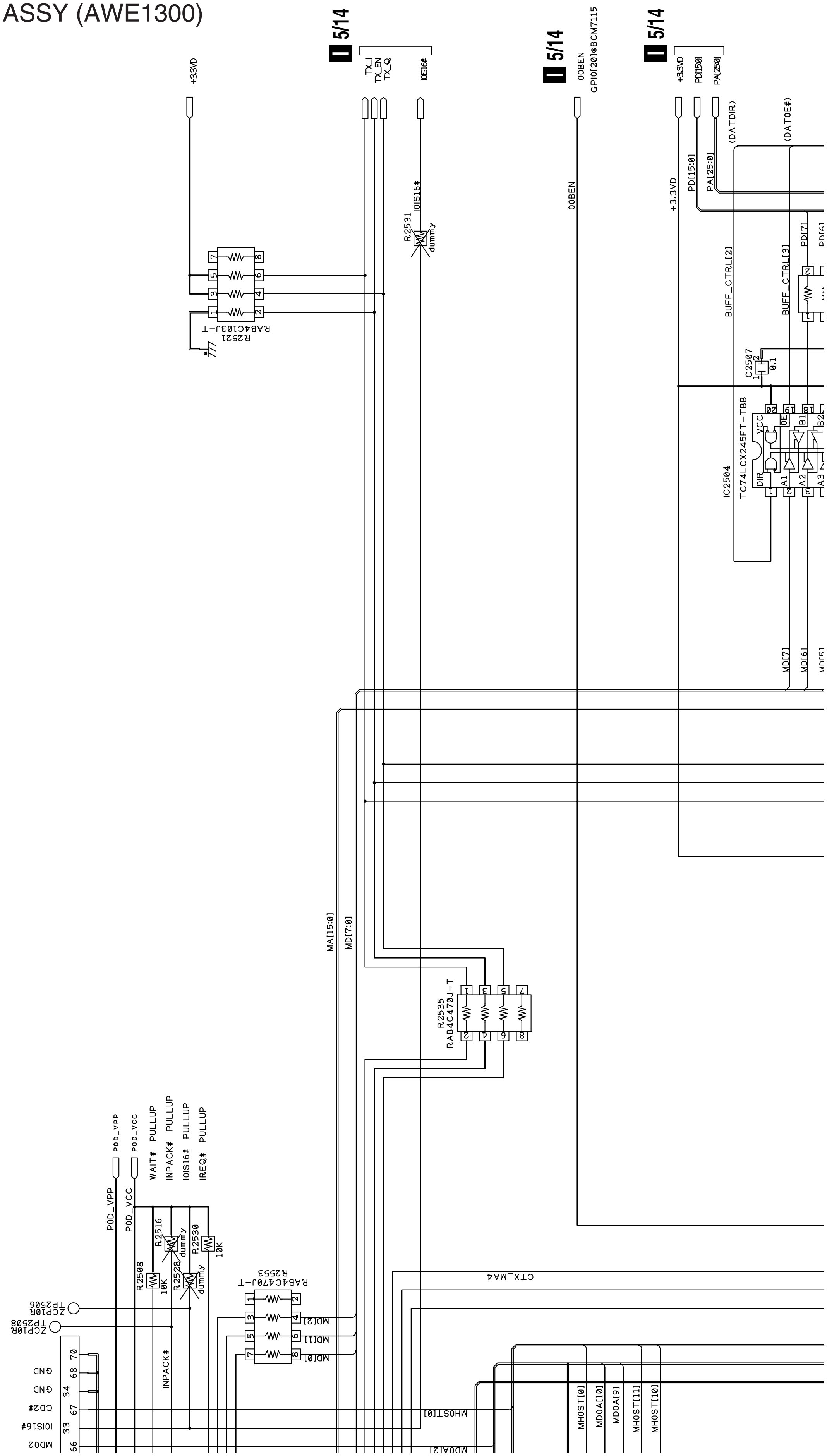

foERBCounter
VSB_DATA_OUT
VSB_CLK_OUT
VSB_SYNC_OUT
KM200SA5
CN2001
+3.3VD
Q2001
UMG1N-TRB
D2001
SML-020MLT-TRB
GREEN
RED
R2038
270
R2039
270
+3.3V
+3.3VD
Sync Lock Status
ZCP10R TP2004
ZCP10R TP2005
ZCP10R TP2007
ZCP10R TP2009
ZCP10R TP2010
XX1299
CN2002
+3.3VD
R2023 1.0K
R2027 1.0K
R2020 100
R2018 100
SCL_MAIN
SDA_MAIN
from SystemIC
5/14
R2024 dummy
R2028 dummy
VSB_AGC
2/14
5/14
VSB_RESET
Demodulator
IC2002
0KPFG-K
0.5mm Pitch 128QFP
PS_DATA(4) 116
PS_DATA(3) 115
PS_DATA(2) 114
PS_DATA(1) 113
GNDC18 112
VDDC18 111
PS_DATA(0) 110
PS_VALID 109
PS_SYNC 108
PS_ERR 107
VDD033 106
GND033 105
104
103
102
VDDC18 101
SCL_SCK 100
SDA_MOSI 99
ADDR0_SSN 98
GND033 97
VDD033 96
ADDR1_MISO 95
IRQN 94
GEN_CTL 93
AGC_CTL 92
RF_AGC_SEL 91
GNDC18 90
VDDC18 89
GND033 88
VDD033 87
RESETN 86
SPI_I2CN 85
TSEL 84
TBYP 83
GNDC18 82
VDDC18 81
GND033 80
VDD033 79
XVDD33 78
XTALO 77
XTALI 76
XGND33 75
PLLGND18 74
PLLVDD18 73
AGND33 72
AVDD33 71
AVDD33 70
A_IF_P 69
A_IF_N 68
AGND33 67
AVDD33 66
65
VDDC18
GNDC18
GNDC18
X2001
ASS1186-_-TBB
26.8MHz
C2033 15p
C2040 15p
C2035 0.01
C2019 10u
+PLLVDD1.8V :1.5mA typ
F2003
VTF1084-_-T
+1.8VD
+1.8VD
C2036 0.01
C2038 10u
VSB_IF+
VSB_IF-
2/14
F2004
+3.3VA
VTF1084-_-T
+3.3VA
C2037 0.01
C2039 10u
+3.3VA :115mA typ
VDD033
GND033
AGND33
51 GND033
52 ADCLK
53 RF_CLK
54 RF_DATA
55 VDDC18
56 GNDC18
57 RF_CS_0N
58 RF_CS_1N
59 TCK
60 TMS
61 TDI
62 TDO
63
64
EJ_TDO_VSB
EJ_TDO_1394
EJ_TMS
EJ_TCK
Don't mount.

3.29 TUNER BOARD ASSY (4/14)

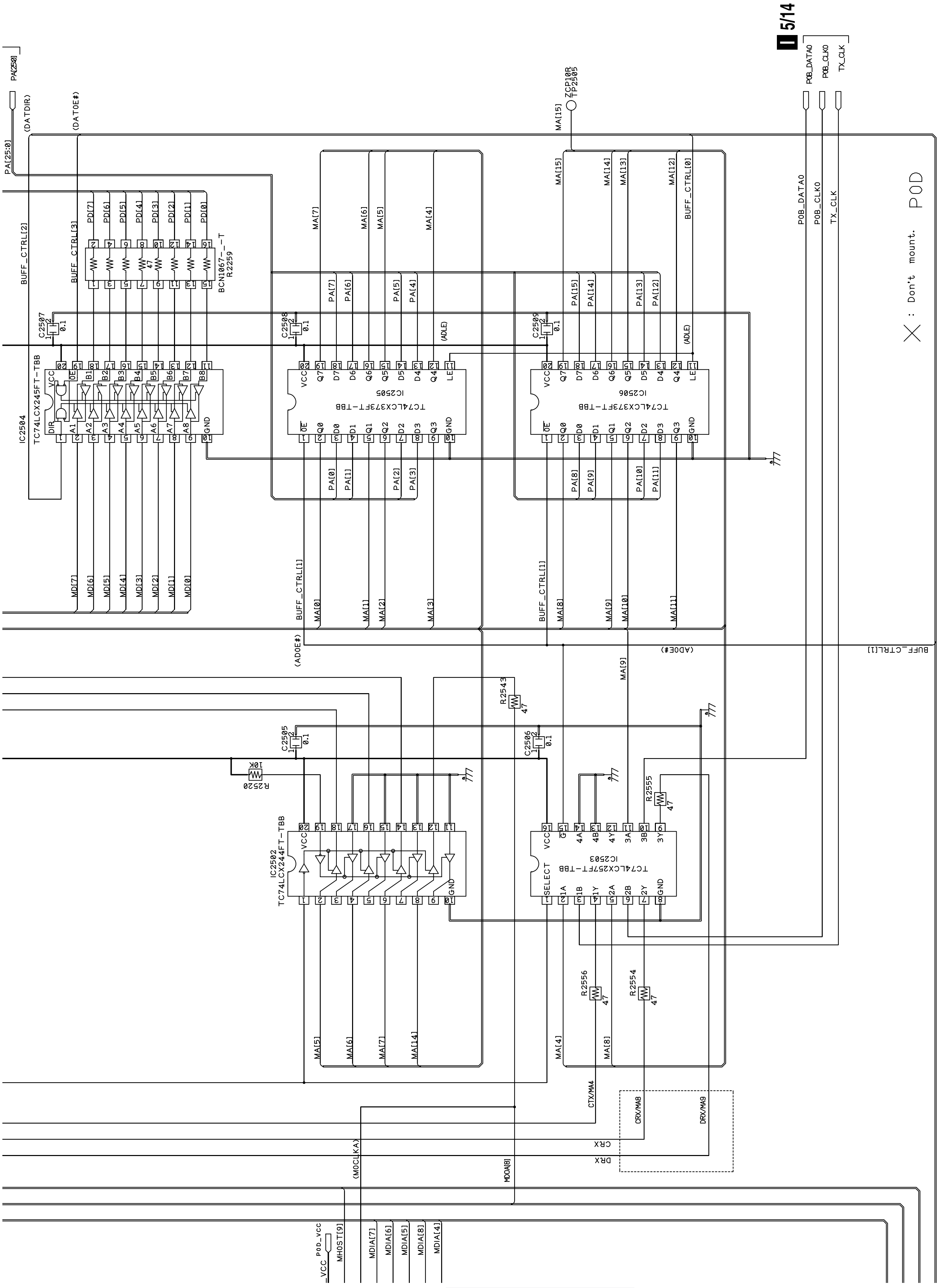
I 4/14 TUNER BOARD ASSY (AWE1300)

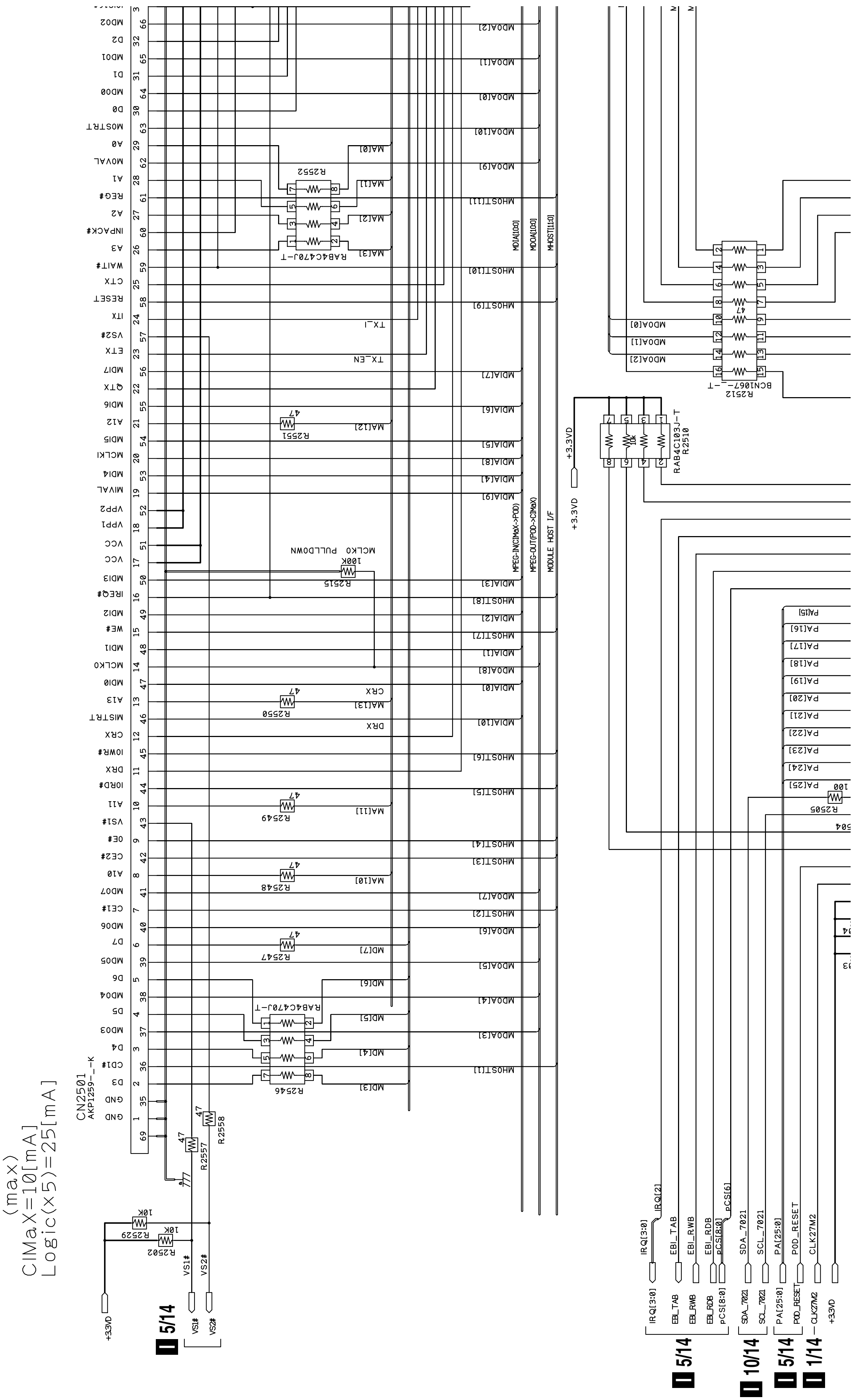
Large size SCH diagram



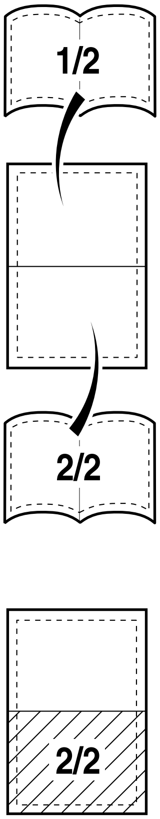


I 5/14
+3.3VD
TX_I
TX_EN
TX_Q
IOIS16#
I 5/14
OOBEN
GPIO[20]@BCM7115
I 5/14
+3.3VD
PD[15:0]
PA[25:0]
(DATDIR)
(DATOE#)
R2531
dummy
IOIS16#
OOBEN
+3.3VD
PD[15:0]
PA[25:0]
PD[7]
PD[6]
BUFF_CTRL[2]
BUFF_CTRL[3]
R2521
RAB4C103J-T
C2507
0.1
IC2504
TC74LCX245FT-TBB
VCC
OE
DIR
A1
A2
A3
B1
B2
MD[7]
MD[6]
MD[5]
MA[15:0]
MD[7:0]
R2535
RAB4C470J-T
POD_VPP
POD_VCC
WAIT# PULLUP
INPACK# PULLUP
IOIS16# PULLUP
IREQ# PULLUP
POD_VPP
POD_VCC
R2516
dummy
R2530
10K
R2508
10K
R2528
dummy
R2553
RAB4C470J-T
CTX_MA4
TP2506
ZCP10R
TP2508
ZCP10R
MD[2]
MD[1]
MD[0]
INPACK#
GND
GND
CD2#
IOIS16#
MDO2
70
68
34
67
33
66
MHOST[0]
MDOA[2]
MHOST[0]
MDOA[10]
MDOA[9]
MHOST[11]
MHOST[10]

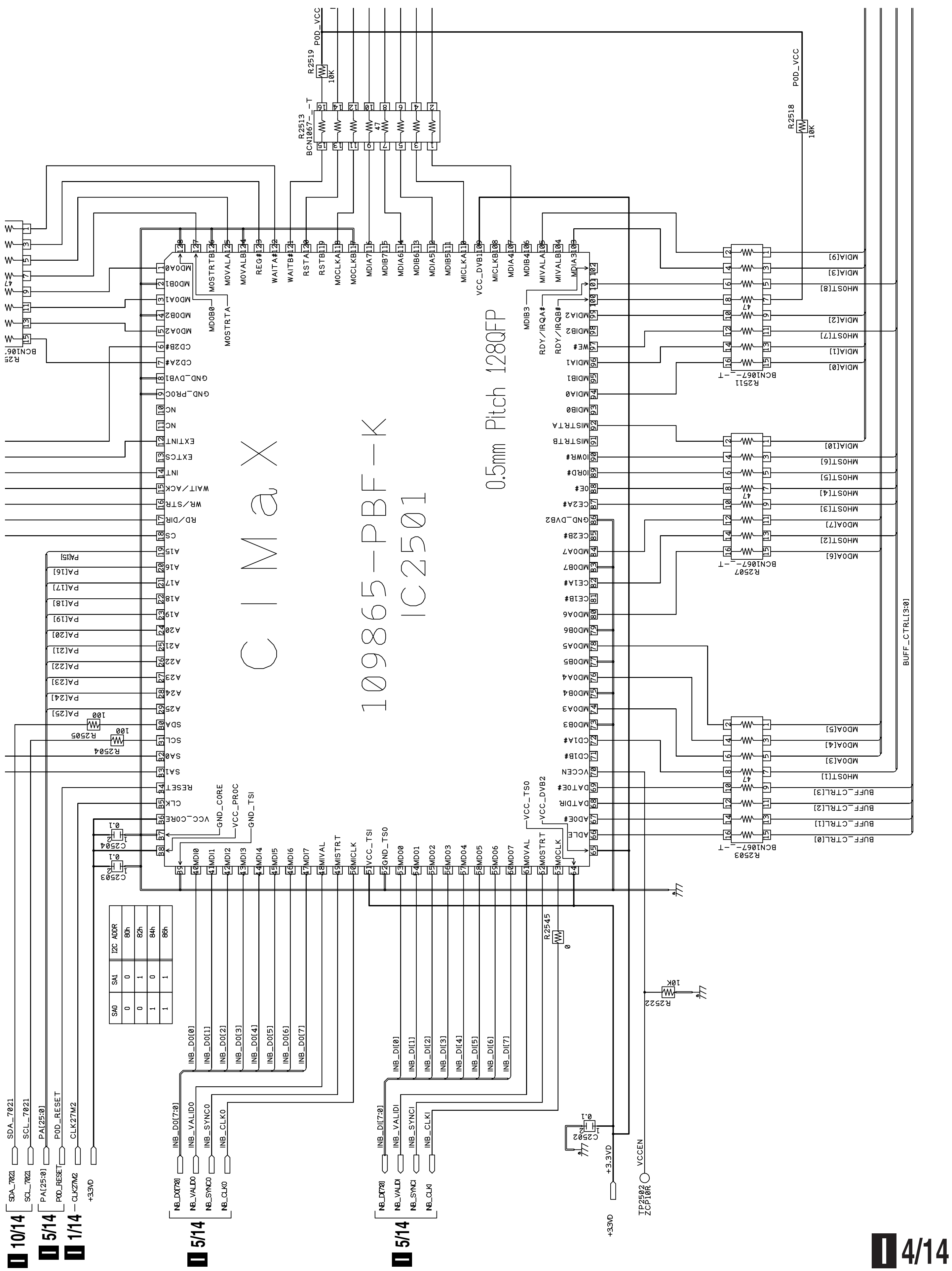

5/14
POB_DATA0
POB_CLK0
TX_CLK
PA[25:0]
(DATDIR)
(DATOE#)
ZCP10R
TP2505
MA[15]
MA[14]
MA[13]
MA[12]
BUFF_CTRL[0]
BUFF_CTRL[2]
BUFF_CTRL[3]
BUFF_CTRL[1]
PD[7]
PD[6]
PD[5]
PD[4]
PD[3]
PD[2]
PD[1]
PD[0]
BCN1067-_-T
R2259
47
C2507
0.1
C2508
0.1
C2509
0.1
C2505
0.1
C2506
0.1
IC2504
TC74LCX245FT-TBB
IC2505
TC74LCX373FT-TBB
IC2506
TC74LCX373FT-TBB
IC2502
TC74LCX244FT-TBB
IC2503
TC74LCX257FT-TBB
MA[7]
MA[6]
MA[5]
MA[4]
PA[7]
PA[6]
PA[5]
PA[4]
PA[15]
PA[14]
PA[13]
PA[12]
(ADLE)
PA[0]
PA[1]
PA[2]
PA[3]
PA[8]
PA[9]
PA[10]
PA[11]
MD[7]
MD[6]
MD[5]
MD[4]
MD[3]
MD[2]
MD[1]
MD[0]
MA[0]
MA[1]
MA[2]
MA[3]
MA[8]
MA[9]
MA[10]
MA[11]
(ADOE#)
R2543
47
R2520
10K
R2555
47
R2556
47
R2554
47
MA[14]
CTX/MA4
CRX/MA8
DRX/MA9
CRX
DRX
(MOCLKA)
MDOA[8]
POD_VCC
MHOST[9]
MDIA[7]
MDIA[6]
MDIA[5]
MDIA[8]
MDIA[4]
POD
× : Don't mount.
A
B
C
D
E
F


CN2501
AKP1259-_-K
R2552
RAB4C470J-T
R2551
R2515
100K
MCLKO PULLDOWN
R2550
R2549
R2548
R2547
R2546
R2557
R2558
R2529
R2502
10K
47
MDOA[2]
MDOA[1]
MDOA[0]
MDOA[10]
MDOA[9]
MHOST[11]
MHOST[10]
MHOST[9]
MA[0]
MA[1]
MA[2]
MA[3]
TX_I
TX_EN
MDIA[7]
MDIA[6]
MA[12]
MDIA[5]
MDIA[8]
MDIA[4]
MDIA[9]
MDIA[3]
MHOST[8]
MDIA[2]
MHOST[7]
MDIA[1]
MDOA[8]
MDIA[0]
CRX
MA[13]
DRX
MDIA[10]
MHOST[6]
MHOST[5]
MA[11]
MHOST[4]
MHOST[3]
MA[10]
MDOA[7]
MHOST[2]
MDOA[6]
MD[7]
MDOA[5]
MD[6]
MDOA[4]
MD[5]
MDOA[3]
MD[4]
MHOST[1]
MD[3]
MDIA[10:0]
MDOA[10:0]
MHOST[11:0]
MPEG-IN(CIMaX->POD)
MPEG-OUT(POD->CIMaX)
MODULE HOST I/F
R2512
BCN1067-_-T
RAB4C103J-T
R2510
10k
+3.3VD
R2505
100
PA[15]
PA[16]
PA[17]
PA[18]
PA[19]
PA[20]
PA[21]
PA[22]
PA[23]
PA[24]
PA[25]
IRQ[3:0]
IRQ[2]
EBI_TAB
EBI_RWB
EBI_RDB
pCS[8:0]
pCS[6]
SDA_7021
SCL_7021
PA[25:0]
POD_RESET
CLK27M2
+3.3VD
VS1#
VS2#
5/14
10/14
5/14
1/14
(max)
CIMaX=10[mA]
Logic(x5)=25[mA]

Large size SCH diagram



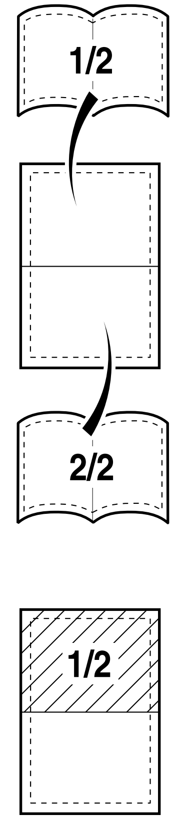
4/14

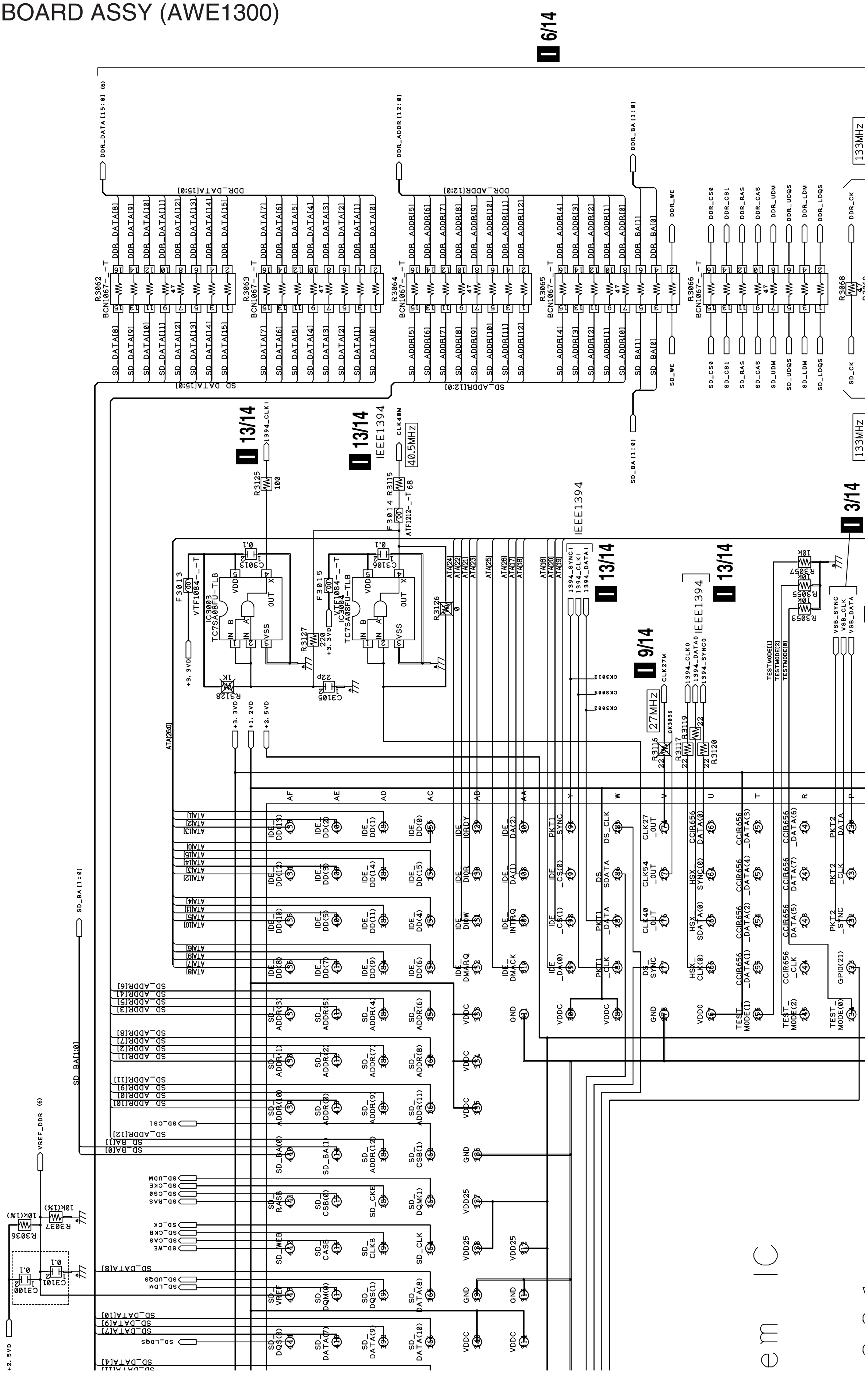

CIMaX
10986S-PBF-K
IC2501
0.5mm Pitch 128QFP
R2513 BCN1067-_-T
R2519 10K
POD_VCC
R2518 10K
R2511 BCN1067-_-T
R2507 BCN1067-_-T
R2503 BCN1067-_-T
47
MDIA[9]
MDIA[3]
MHOST[8]
MDIA[2]
MHOST[7]
MDIA[1]
MDIA[0]
MHOST[6]
MHOST[5]
MHOST[4]
MHOST[3]
MDOA[7]
MHOST[2]
MDOA[6]
MDOA[5]
MDOA[4]
MDOA[3]
MHOST[1]
BUFF_CTRL[3]
BUFF_CTRL[2]
BUFF_CTRL[1]
BUFF_CTRL[0]
BUFF_CTRL[3:0]
PA[15]
PA[16]
PA[17]
PA[18]
PA[19]
PA[20]
PA[21]
PA[22]
PA[23]
PA[24]
PA[25]
R2504 100
R2505 100
C2503 0.1
C2504 0.1
C2502 0.1
R2545 0
R2522 10K
SDA_7021
SCL_7021
PA[25:0]
POD_RESET
CLK27M2
+33VD
+3.3VD
VCCEN
TP2502 ZCP10R
INB_DO[7:0]
INB_VALIDO
INB_SYNCO
INB_CLKO
INB_DO[0]
INB_DO[1]
INB_DO[2]
INB_DO[3]
INB_DO[4]
INB_DO[5]
INB_DO[6]
INB_DO[7]
INB_DI[7:0]
INB_VALIDI
INB_SYNCI
INB_CLKI
INB_DI[0]
INB_DI[1]
INB_DI[2]
INB_DI[3]
INB_DI[4]
INB_DI[5]
INB_DI[6]
INB_DI[7]
10/14
5/14
1/14
SA0 SA1 I2C ADDR
0 0 80h
0 1 82h
1 0 84h
1 1 86h

3.30 TUNER BOARD ASSY (5/14)

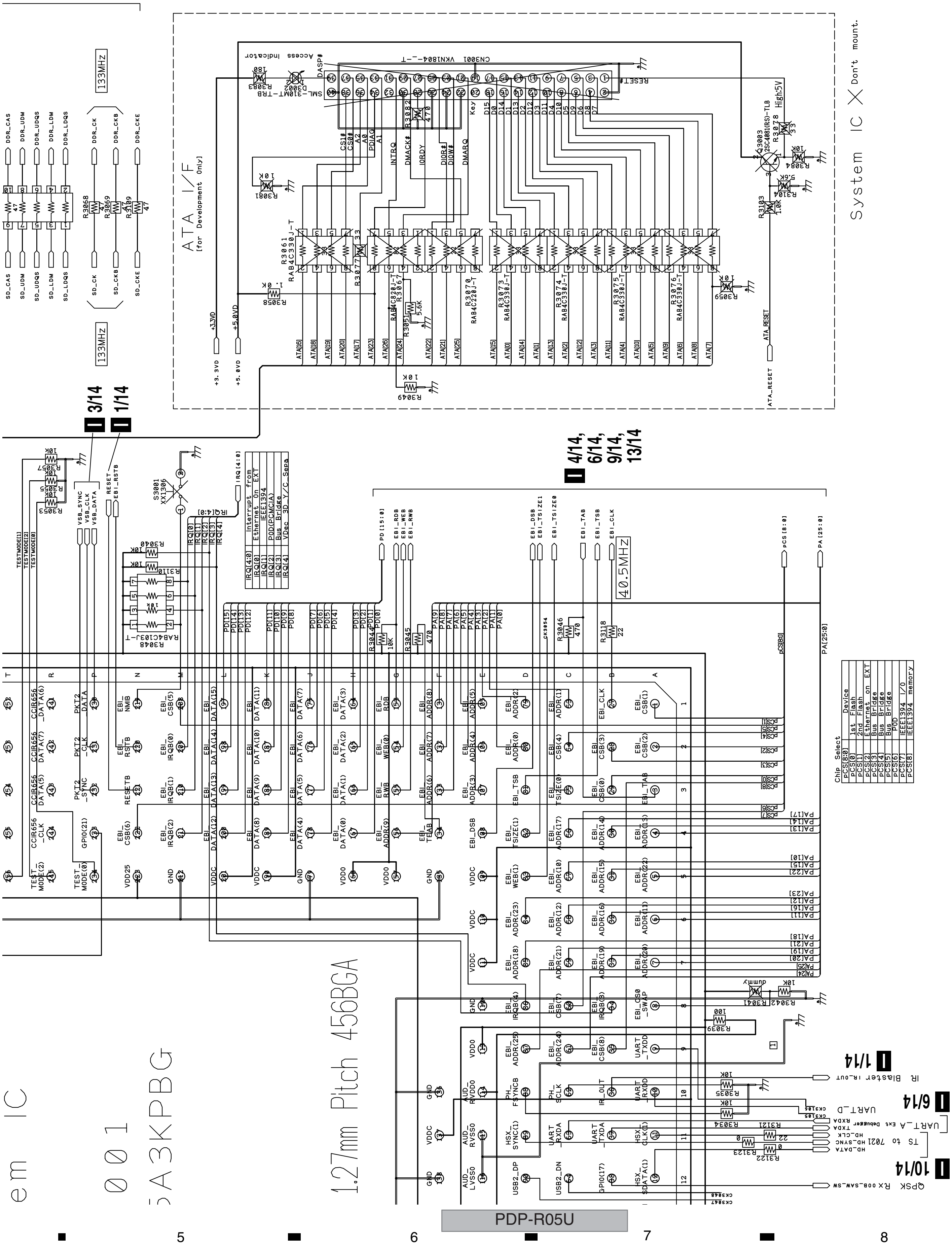
5/14 TUNER BOARD ASSY (AWE1300)

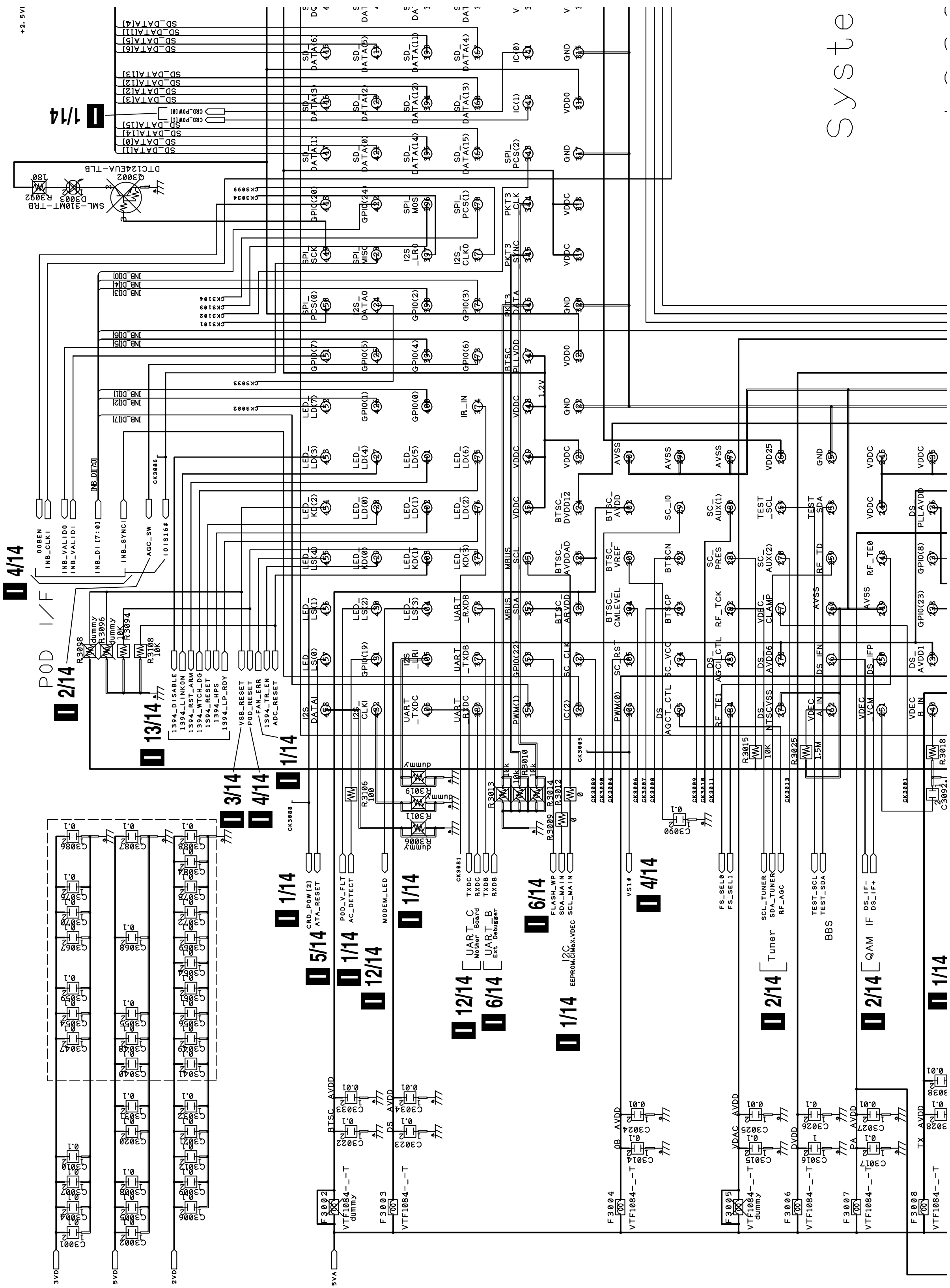
Large size SCH diagram



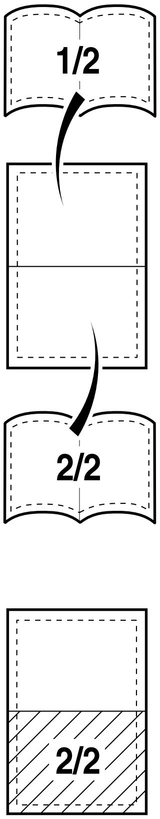


6/14
DDR_DATA[15:0] (6)
DDR_ADDR[12:0]
DDR_BA[1:0]
133MHz
R3062 BCN1067-_-T 47
R3063 BCN1067-_-T 47
R3064 BCN1067-_-T 47
R3065 BCN1067-_-T 47
R3066 BCN1067-_-T 47
R3068
SD_DATA[15:0]
SD_ADDR[12:0]
SD_BA[1:0]
DDR_WE
DDR_CS0
DDR_CS1
DDR_RAS
DDR_CAS
DDR_UDM
DDR_UDQS
DDR_LDM
DDR_LDQS
DDR_CK
13/14
1394_CLKI
R3125 100
13/14
IEEE1394
CLK40M
40.5MHz
R3115 68
F3014 ATF1212-_-T
F3013 VTF1084-_-T
F3015 VTF1084-_-T
IC3003 TC7SA08FU-TLB
IC3004 TC7SA08FU-TLB
C3013 0.1
C3106 0.1
C3105 22p
R3126 0
R3127 220
R3128 1K
+3.3VD
+1.2VD
+2.5VD
ATA[26:0]
IEEE1394
13/14
1394_SYNCI
1394_CLKI
1394_DATAI
13/14
9/14
CLK27M
27MHz
1394_CLKO
1394_DATAO
1394_SYNCO
R3116 22
R3117 22
R3119 22
R3120 22
3/14
R3057 10K
R3055 10K
R3053 10K
VSB_SYNC
VSB_CLK
VSB_DATA
TESTMODE[1]
TESTMODE[2]
TESTMODE[0]
AF AE AD AC AB AA Y W V U T R P
IDE_DD(13)
IDE_DD(2)
IDE_DD(1)
IDE_DD(0)
IDE_IORDY
IDE_DA(2)
PKT1_SYNC
DS_CLK
CLK27_OUT
CCIR656_DATA(0)
CCIR656_DATA(3)
CCIR656_DATA(6)
PKT2_DATA
IDE_DD(12)
IDE_DD(3)
IDE_DD(14)
IDE_DD(15)
IDE_DIOR
IDE_DA(1)
IDE_CS(0)
DS_SDATA
CLK54_OUT
HSX_SYNC(0)
CCIR656_DATA(4)
CCIR656_DATA(7)
PKT2_CLK
IDE_DD(10)
IDE_DD(5)
IDE_DD(11)
IDE_DD(4)
IDE_DIOW
IDE_INTRQ
IDE_CS(1)
PKT1_DATA
CLK40_OUT
HSX_SDATA(0)
CCIR656_DATA(2)
CCIR656_DATA(5)
PKT2_VALID
IDE_DD(8)
IDE_DD(7)
IDE_DD(9)
IDE_DD(6)
IDE_DMARQ
IDE_DMACK
IDE_DA(0)
PKT1_CLK
DS_SYNC
HSX_CLK(0)
CCIR656_DATA(1)
CCIR656_CLK
GPIO(21)
SD_ADDR(3)
SD_ADDR(5)
SD_ADDR(4)
SD_ADDR(6)
VDDC
GND
VDDC
VDDC
GND
VDDO
TEST_MODE(1)
TEST_MODE(2)
TEST_MODE(0)
SD_ADDR(1)
SD_ADDR(2)
SD_ADDR(7)
SD_ADDR(8)
SD_ADDR(10)
SD_ADDR(0)
SD_ADDR(9)
SD_ADDR(11)
SD_BA(0)
SD_BA(1)
SD_ADDR(12)
SD_CSB(1)
SD_RASB
SD_CSB(0)
SD_CKE
SD_DQM(1)
VDD25
SD_WEB
SD_CASB
SD_CLKB
SD_CLK
SD_VREF
SD_DQM(0)
SD_DQS(1)
SD_DATA(8)
SD_DQS(0)
SD_DATA(7)
SD_DATA(9)
SD_DATA(10)
SD_CS1
SD_UDM
SD_CKE
SD_CS0
SD_RAS
SD_CK
SD_CKB
SD_CAS
SD_WE
SD_UDQS
SD_LDM
SD_LDQS
VREF_DDR (6)
R3036 10K(1%)
R3037 10K(1%)
C3100 0.1
C3101 0.1
+2.5VD

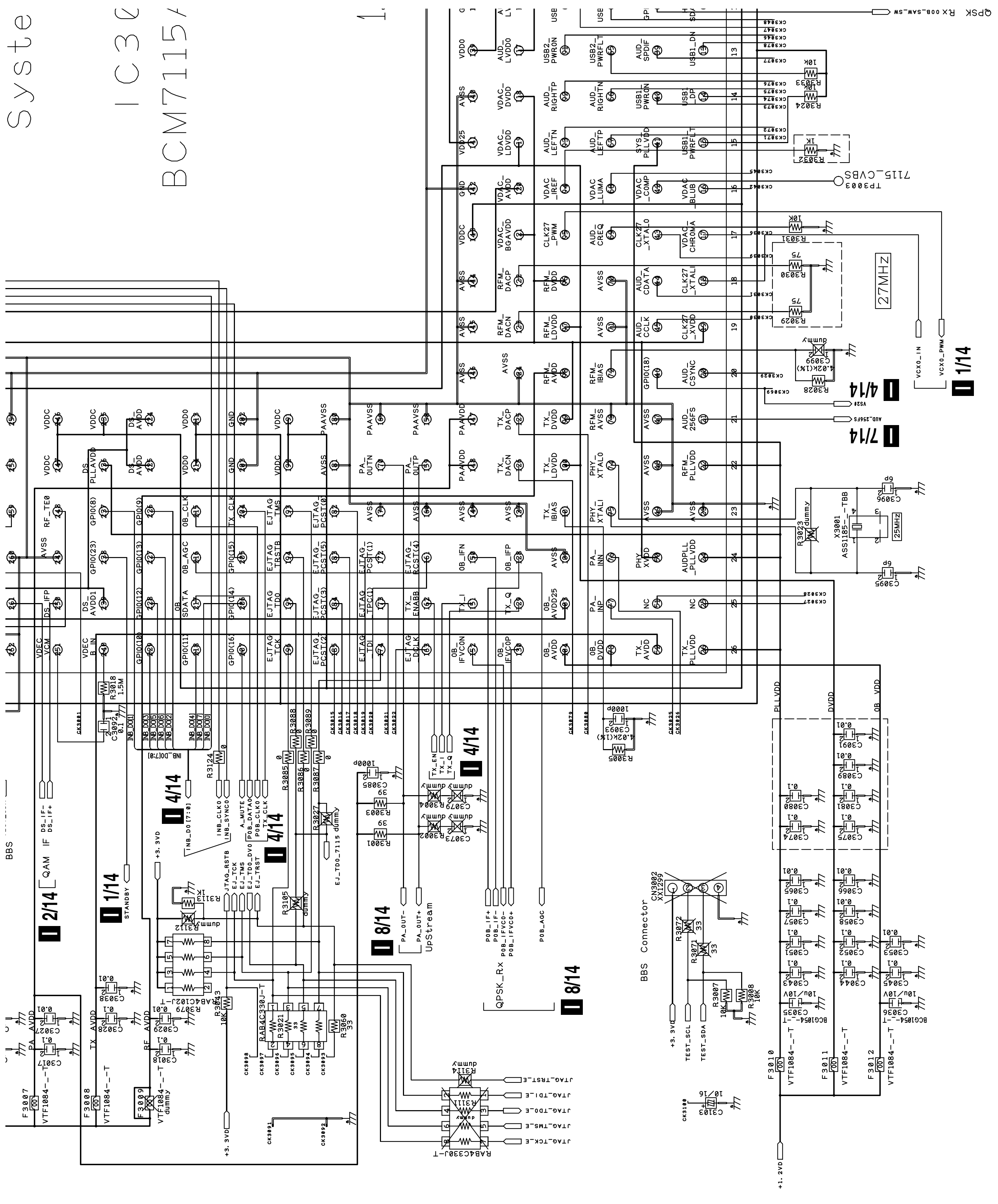

ATA I/F
[for Development Only]
System IC
Don't mount.
CN3001 VKN1804-_-T
Access Indicator
D3002 SML-310MT-TRB
R3083 180
DASP#
RESET#
Q3003 2SC4081(RS)-TLB
High:5V
R3078 33
R3084 10K
R3104 5.6K
R3103 1.0K
R3081 10K
R3058 1.0K
R3059 10K
R3049 10K
R3051 5.6K
R3061 RAB4C330J-T
R3077 33
R3067 RAB4C820J-T
R3070 RAB4C220J-T
R3073 RAB4C330J-T
R3074 RAB4C330J-T
R3075 RAB4C330J-T
R3076 RAB4C330J-T
+3.3VD
+5.0VD
ATA_RESET
CS1# CS0# A2 A0 PDIAG A1 INTRQ DMACK# IORDY DIOR# DIOW# DMARQ Key
D15 D0 D14 D1 D13 D2 D12 D3 D11 D4 D10 D5 D9 D6 D8 D7
ATA[16] ATA[18] ATA[19] ATA[20] ATA[17] ATA[23] ATA[26] ATA[24] ATA[22] ATA[21] ATA[25] ATA[15] ATA[0] ATA[14] ATA[1] ATA[13] ATA[2] ATA[12] ATA[3] ATA[11] ATA[4] ATA[10] ATA[5] ATA[9] ATA[6] ATA[8] ATA[7]
DDR_CAS DDR_UDM DDR_UDQS DDR_LDM DDR_LDQS DDR_CK DDR_CKB DDR_CKE
SD_CAS SD_UDM SD_UDQS SD_LDM SD_LDQS SD_CK SD_CKB SD_CKE
R3068 47
R3069 47
R3109 47
133MHz
133MHz
3/14
1/14
4/14, 6/14, 9/14, 13/14
R3057 10K
R3055 10K
R3053 10K
TESTMODE[1] TESTMODE[2] TESTMODE[0]
VSB_SYNC VSB_CLK VSB_DATA
RESET EBI_RSTB
S3001 XX1306
IRQ[4:0]
R3040 10K
R3110 10K
R3048 RAB4C103J-T
IRQ[0] IRQ[1] IRQ[2] IRQ[3] IRQ[4]
IRQ[4:0] Interrupt from
IRQ[0] Ethernet On EXT
IRQ[1] IEEE1394
IRQ[2] POD(PCMCIA)
IRQ[3] Bus Bridge
IRQ[4] VDec 3D Y/C Sepa
PD[15:0] EBI_RDB EBI_WEB EBI_RWB
EBI_DSB EBI_TSIZE1 EBI_TSIZE0 EBI_TAB EBI_TSB EBI_CLK
40.5MHz
PCS[8:0] PA[25:0]
R3044 10K
R3045 470
R3046 470
R3118 22
CK3054
Chip Select
PCS[8:0] Device
PCS[0] 1st Flash
PCS[1] 2nd Flash
PCS[2] Ethernet on EXT
PCS[3] Bus Bridge
PCS[4] Bus Bridge
PCS[5] Bus Bridge
PCS[6] POD
PCS[7] IEEE1394 I/O
PCS[8] IEEE1394 memory
CCIR656_DATA(6) CCIR656_DATA(7) CCIR656_DATA(5) CCIR656_CLK
PKT2_DATA PKT2_CLK PKT2_SYNC GPIO(21) GPIO(17)
TEST_MODE(2) TEST_MODE(0) VDD25 GND VDDC VDDO
EBI_NMIB EBI_RSTB RESETB EBI_CSB(5) EBI_CSB(6) EBI_IRQB(0) EBI_IRQB(1) EBI_IRQB(2)
EBI_DATA(0) … EBI_DATA(15)
EBI_RDB EBI_WEB(0) EBI_RWB EBI_TAB EBI_DSB EBI_TSB EBI_TSIZE(0) EBI_TSIZE(1) EBI_CLK
EBI_ADDR(0) … EBI_ADDR(25)
EBI_CSB(1) … EBI_CSB(8) EBI_WEB(1) EBI_IRQB(3) EBI_IRQB(4) EBI_CS0_SWAP
UART_TXDD UART_RXDD UART_RXDA UART_TXDA IR_OUT PH_SCLK PH_FSYNCB HSX_SYNC(1) HSX_CLK(1) HSX_SDATA(1)
AUD_RVDDO AUD_RVSS0 AUD_LVSS0 USB2_DP USB2_DN
R3041 dummy
R3042 10K
R3039 100
R3035 10K
R3034 10K
R3121 22
R3122 0
R3123 0
IR Blaster IR_OUT
1/14
UART_D
6/14
UART_A Ext Debugger RXDA TXDA
TS to 7021 HD_CLK HD_SYNC HD_DATA
10/14
QPSK RX 00B_SAW_SW
CK3185 CK3186 CK3047 CK3048
1.27mm Pitch 456BGA
5A3KPBG
001
em IC


Syste
1/14
SD_DATA[4]
SD_DATA[11]
SD_DATA[5]
SD_DATA[6]
SD_DATA[13]
SD_DATA[12]
SD_DATA[2]
SD_DATA[3]
CRD_POW[0]
CRD_POW[1]
SD_DATA[15]
SD_DATA[14]
SD_DATA[0]
SD_DATA[1]
DTC124EUA-TLB
Q3002
D3003
SML-310MT-TRB
R3092
180
INB_DI[0]
INB_DI[4]
INB_DI[3]
INB_DI[6]
INB_DI[5]
INB_DI[1]
INB_DI[2]
INB_DI[7]
INB_DI[7:0]
OOBEN
INB_CLKI
INB_VALID0
INB_VALID1
INB_DI[7:0]
INB_SYNCI
AGC_SW
IOIS16#
4/14
POD I/F
2/14
13/14
1394_DISABLE
1394_LINKON
1394_RST_FRM
1394_WTCH_DG
1394_RESET
1394_HPS
1394_LP_RDY
VSB_RESET
POD_RESET
FAN_ERR
1394_TR_EN
ADC_RESET
1/14
3/14
4/14
R3098
R3096
R3094
R3108
dummy
10K
SD_DATA(6)
SD_DATA(5)
SD_DATA(11)
SD_DATA(4)
SD_DATA(3)
SD_DATA(2)
SD_DATA(12)
SD_DATA(13)
SD_DATA(1)
SD_DATA(0)
SD_DATA(14)
SD_DATA(15)
GPIO(20)
GPIO(24)
SPI_MOS
SPI_PCS(1)
SPI_SCK
SPI_MISO
I2S_LR0
I2S_CLK0
SPI_PCS(0)
I2S_DATA0
GPIO(2)
GPIO(3)
GPIO(7)
GPIO(5)
GPIO(4)
GPIO(6)
LED_LD(7)
GPIO(1)
GPIO(0)
IR_IN
LED_LD(3)
LED_LD(4)
LED_LD(5)
LED_LD(6)
LED_KD(2)
LED_LD(0)
LED_LD(1)
LED_LD(2)
LED_LS(4)
LED_KD(0)
LED_KD(1)
LED_KD(3)
LED_LS(1)
LED_LS(2)
LED_LS(3)
UART_RXDB
LED_LS(0)
GPIO(19)
I2S_IRI
UART_TXDB
I2S_DATAI
I2S_CLKI
UART_TXDC
UART_RXDC
IC(0)
IC(1)
SPI_PCS(2)
PKT3_CLK
PKT3_SYNC
PKT3_DATA
BTSC_PLLVDD
VDDC
MBUS_SCL
MBUS_SDA
GPIO(22)
PWM(1)
GND
VDD0
1.2V
BTSC_DVDD12
BTSC_AVDDAD
BTSC_ARVDD
SC_CLK
IC(2)
BTSC_AVDD
BTSC_VREF
BTSC_CMLEVEL
SC_RST
PWM(0)
AVSS
SC_IO
BTSCN
BTSCP
SC_VCC
DS_AGCT_CTL
SC_AUX(1)
SC_PRES
RF_TCK
DS_AGCI_CTL
RF_TEI
VDD25
TEST_SCL
SC_AUX(2)
VDEC_CLAMP
DS_AVDD6
DS_NTSCVSS
VDEC_A_IN
GND
TEST_SDA
RF_TD
AVSS
DS_IFN
VDDC
RF_TE0
AVSS
DS_IFP
VDEC_VCM
DS_PLLAVDD
GPIO(8)
GPIO(23)
DS_AVDD1
VDEC_B_IN
R3106
R3019
R3011
R3006
R3013
R3010
R3014
R3012
R3009
R3015
R3025
R3018
C3090
C3092
dummy
1K
10K
1.5M
1/14
CRD_POW[2]
ATA_RESET
5/14
POD_V_FLT
AC_DETECT
1/14
12/14
MODEM_LED
1/14
TXDC
RXDC
TXDB
RXDB
UART_C
Mother Board
UART_B
Ext Debugger
12/14
6/14
FLASH_WP
SDA_MAIN
SCL_MAIN
6/14
I2C
EEPROM,CIMax,VDEC
1/14
VS1#
4/14
FS_SEL0
FS_SEL1
SCL_TUNER
SDA_TUNER
RF_AGC
Tuner
2/14
TEST_SCL
TEST_SDA
BBS
DS_IF-
DS_IF+
QAM IF
2/14
1/14
BTSC_AVDD
DS_AVDD
OB_AVDD
VDAC_AVDD
DVDD
PA_AVDD
TX_AVDD
C3033
C3022
C3034
C3023
C3024
C3014
C3025
C3015
C3026
C3016
C3027
C3017
C3028
0.01
0.1
F3002
F3003
F3004
F3005
F3006
F3007
F3008
VTF1084-_-T
dummy
+3.3VD
+2.5VD
+1.2VD
+2.5VA
+2.5V
C3001
C3002
C3006
0.1

Large size SCH diagram



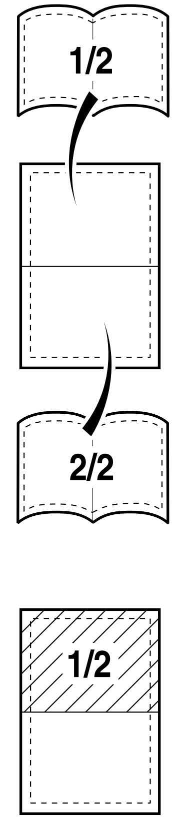
5/14

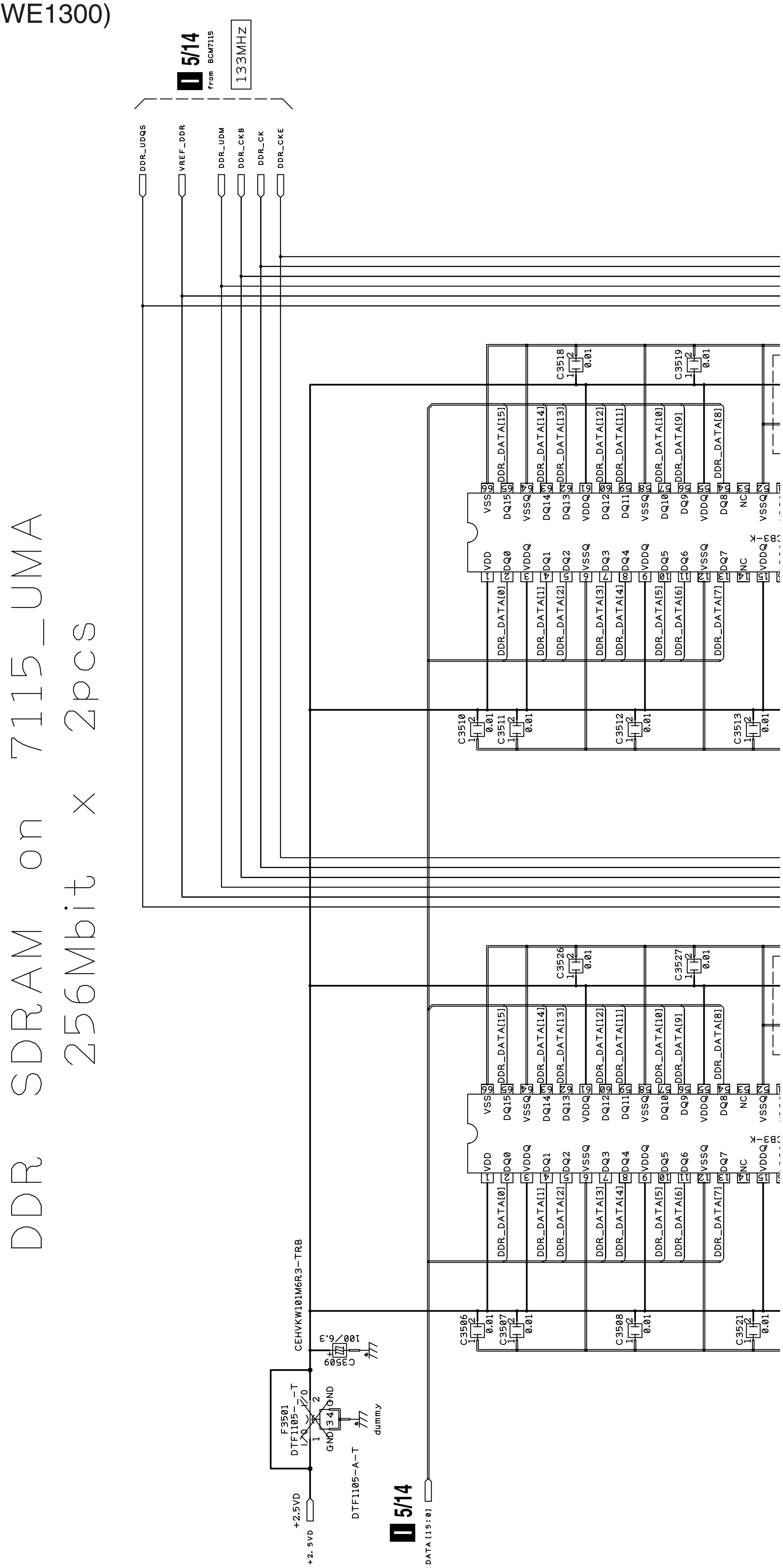

Syste
IC30
BCM7115/
QPSK RX00B_SAW_SW
7115_CVBS
TP3003
27MHz
25MHz
X3001
ASS1185-_-TBB
VCXO_IN
VCXO_PWM
1/14
4/14
7/14
2/14
8/14
AUD_256FS
VS2#
BBS
QAM IF
DS_IF-
DS_IF+
STANDBY
+3.3VD
INB_DO[7:0]
INB_CLKO
INB_SYNCO
A_MUTE
POB_DATAO
POB_CLKO
TX_CLK
JTAG_RSTB
EJ_TCK
EJ_TMS
EJ_TDO_DVO
EJ_TRST
EJ_TDO_7115
TX_EN
TX_I
TX_Q
PA_OUT-
PA_OUT+
UpStream
POB_IF+
POB_IF-
POB_IFVCO-
POB_IFVCO+
QPSK_Rx
POB_AGC
BBS Connector
CN3002
XX1299
TEST_SCL
TEST_SDA
JTAG_TRST_E
JTAG_TDI_E
JTAG_TDO_E
JTAG_TMS_E
JTAG_TCK_E
RAB4C330J-T
RAB4C102J-T
PLLVDD
DVDD
OB_VDD
PA_AVDD
TX_AVDD
RF_AVDD
F3007
F3008
F3009
F3010
F3011
F3012
VTF1084-_-T
BCG1054-_-T
+1.2VD
dummy
R3001
R3003
R3005
R3018
R3021
R3024
R3029
R3030
R3031
R3032
R3033
R3085
R3086
R3087
R3088
R3089
R3105
R3111
R3112
R3113
R3114
R3124
C3003
C3073
C3079
C3085
C3092
C3095
C3096
C3099
C3103

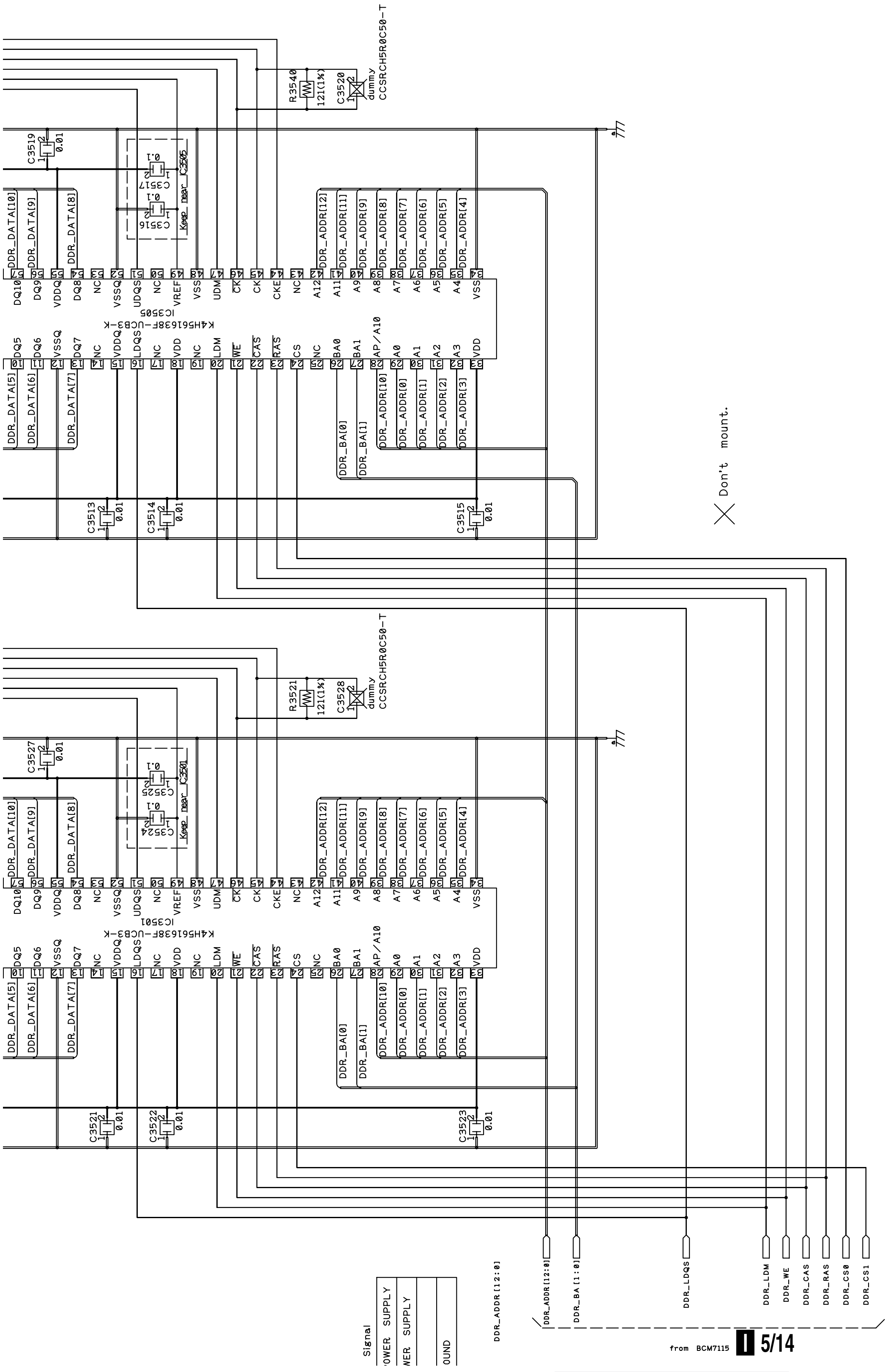
3.31 TUNER BOARD ASSY (6/14)

I 6/14 TUNER BOARD ASSY (AWE1300)

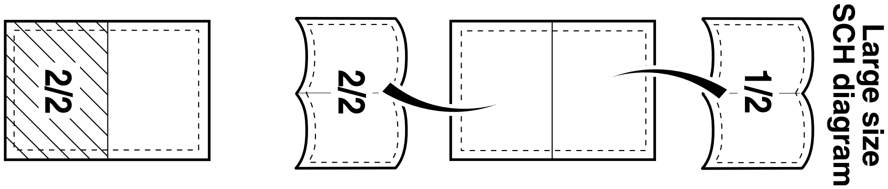
Large size SCH diagram



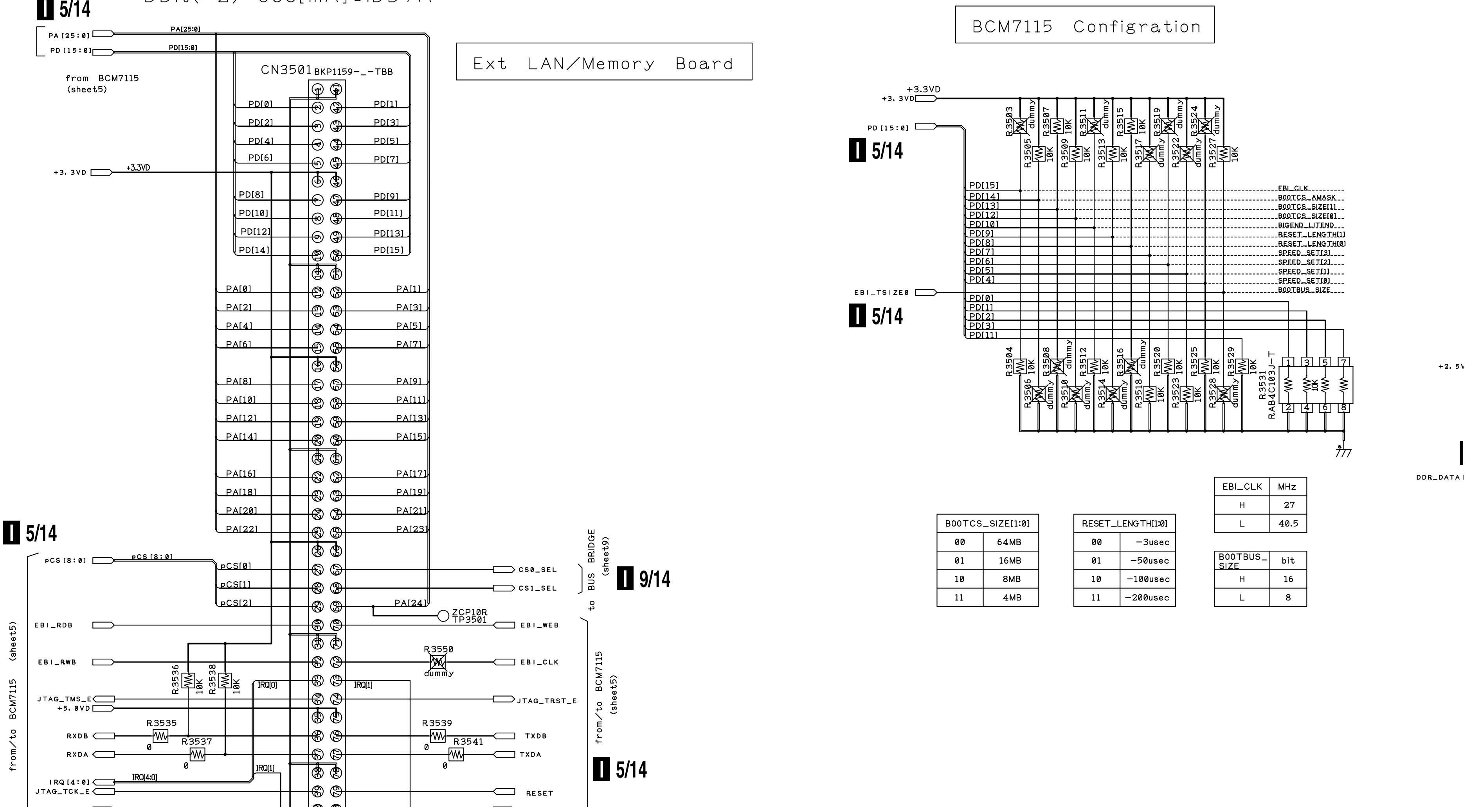

I 5/14
from BCM7115
133MHz
DDR_UDQS
VREF_DDR
DDR_UDM
DDR_CKB
DDR_CK
DDR_CKE
DDR SDRAM on 7115_UMA
256Mbit × 2pcs
C3518 0.01
C3519 0.01
C3510 0.01
C3511 0.01
C3512 0.01
C3513 0.01
C3526 0.01
C3527 0.01
C3506 0.01
C3507 0.01
C3508 0.01
C3521 0.01
VSS DQ15 VSSQ DQ14 DQ13 VDDQ DQ12 DQ11 VSSQ DQ10 DQ9 VDDQ DQ8 NC VSSQ
VDD DQ0 VDDQ DQ1 DQ2 VSSQ DQ3 DQ4 VDDQ DQ5 DQ6 VSSQ DQ7 NC VDDQ
DDR_DATA[0] DDR_DATA[1] DDR_DATA[2] DDR_DATA[3] DDR_DATA[4] DDR_DATA[5] DDR_DATA[6] DDR_DATA[7]
DDR_DATA[8] DDR_DATA[9] DDR_DATA[10] DDR_DATA[11] DDR_DATA[12] DDR_DATA[13] DDR_DATA[14] DDR_DATA[15]
CEHVKW101M6R3-TRB
C3509 100/6.3
F3501
DTF1105-_-T
GND
dummy
DTF1105-A-T
+2.5VD
I 5/14
DATA[15:0]


IC3505
K4H561638F-UCB3-K
IC3501
K4H561638F-UCB3-K
R3540
121(1%)
C3520
dummy
CCSRCH5R0C50-T
R3521
121(1%)
C3528
dummy
CCSRCH5R0C50-T
C3519
0.01
C3517
0.1
C3516
0.1
Keep near IC3505
C3527
0.01
C3525
0.1
C3524
0.1
Keep near IC3501
C3513
0.01
C3514
0.01
C3515
0.01
C3521
0.01
C3522
0.01
C3523
0.01
DQ10
DQ9
VDDQ
DQ8
NC
VSSQ
UDQS
NC
VREF
VSS
UDM
CK
CK
CKE
NC
A12
A11
A9
A8
A7
A6
A5
A4
VSS
DQ5
DQ6
VSSQ
DQ7
NC
VDDQ
LDQS
NC
VDD
NC
LDM
WE
CAS
RAS
CS
NC
BA0
BA1
AP/A10
A0
A1
A2
A3
VDD
DDR_DATA[10]
DDR_DATA[9]
DDR_DATA[8]
DDR_DATA[5]
DDR_DATA[6]
DDR_DATA[7]
DDR_ADDR[12]
DDR_ADDR[11]
DDR_ADDR[9]
DDR_ADDR[8]
DDR_ADDR[7]
DDR_ADDR[6]
DDR_ADDR[5]
DDR_ADDR[4]
DDR_ADDR[10]
DDR_ADDR[0]
DDR_ADDR[1]
DDR_ADDR[2]
DDR_ADDR[3]
DDR_BA[0]
DDR_BA[1]
Don't mount.
DDR_ADDR[12:0]
DDR_BA[1:0]
DDR_LDQS
DDR_LDM
DDR_WE
DDR_CAS
DDR_RAS
DDR_CS0
DDR_CS1
DDR_ADDR[12:0]
from BCM7115
I 5/14
Signal
OWER SUPPLY
WER SUPPLY
OUND

Large size SCH diagram



(max)
Flash=80[mA],50[mA](typ)
@Program,Elase
DDR(×2)=600[mA]@IDD7A

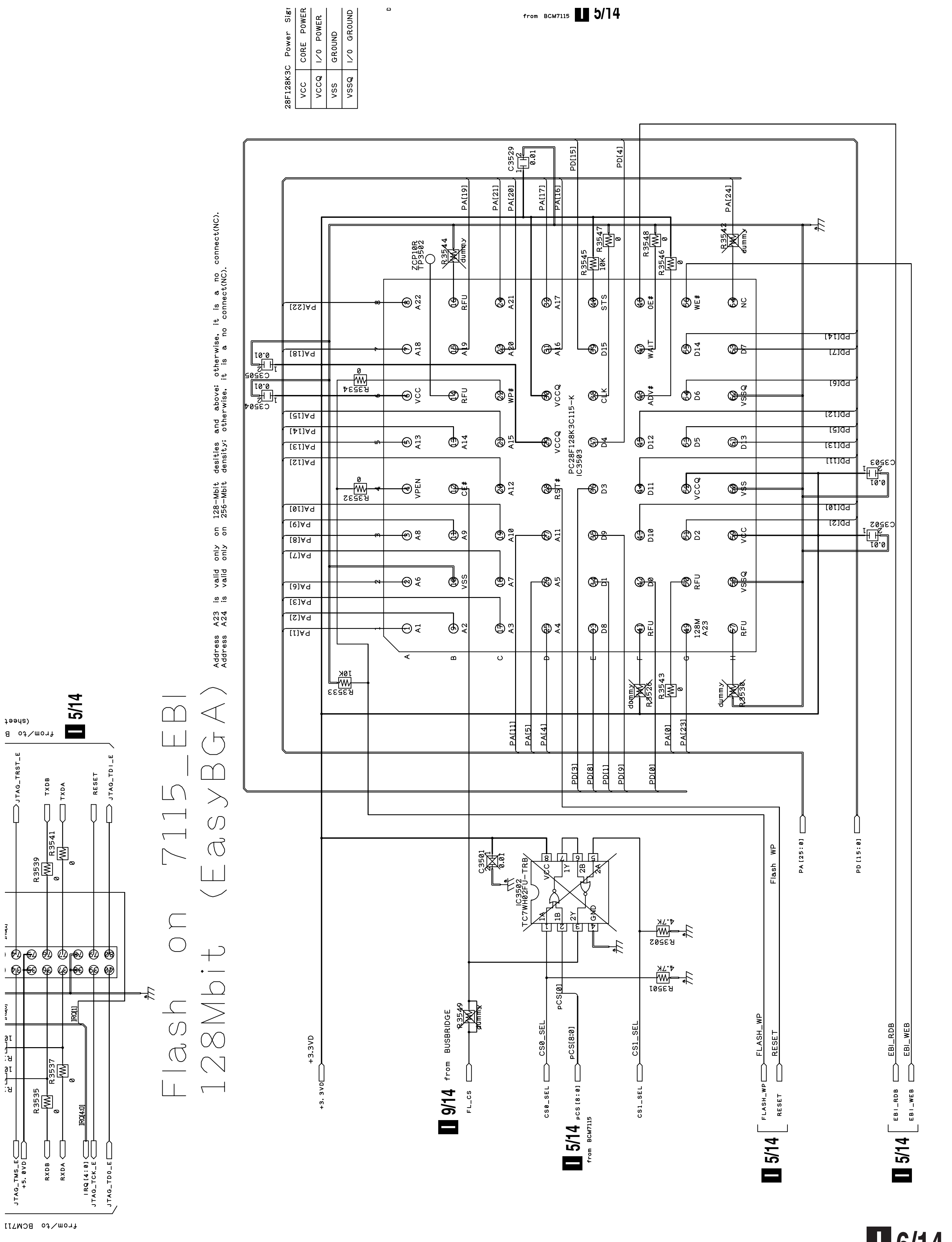

Ext LAN/Memory Board
BCM7115 Configration
CN3501 BKP1159-_-TBB
5/14
PA[25:0]
PD[15:0]
from BCM7115 (sheet5)
+3.3VD
PD[0] PD[1] PD[2] PD[3] PD[4] PD[5] PD[6] PD[7] PD[8] PD[9] PD[10] PD[11] PD[12] PD[13] PD[14] PD[15]
PA[0] PA[1] PA[2] PA[3] PA[4] PA[5] PA[6] PA[7] PA[8] PA[9] PA[10] PA[11] PA[12] PA[13] PA[14] PA[15] PA[16] PA[17] PA[18] PA[19] PA[20] PA[21] PA[22] PA[23] PA[24]
pCS[8:0]
pCS[0] pCS[1] pCS[2]
CS0_SEL
CS1_SEL
to BUS BRIDGE (sheet9)
9/14
ZCP10R
TP3501
EBI_WEB
EBI_RDB
EBI_RWB
EBI_CLK
R3550 dummy
JTAG_TMS_E
+5.0VD
JTAG_TRST_E
R3536 10K
R3538 10K
IRQ[0]
IRQ[1]
R3535 0
R3537 0
R3539 0
R3541 0
RXDB
RXDA
TXDB
TXDA
IRQ[4:0]
JTAG_TCK_E
RESET
from/to BCM7115 (sheet5)
EBI_TSIZE0
R3503 dummy
R3505 10K
R3507 10K
R3509 10K
R3511 dummy
R3513 10K
R3515 10K
R3517 10K
R3519 dummy
R3522 dummy
R3524 dummy
R3527 10K
R3504 10K
R3506 dummy
R3508 dummy
R3510 dummy
R3512 10K
R3514 10K
R3516 dummy
R3518 dummy
R3520 10K
R3523 10K
R3525 10K
R3528 10K
R3529 dummy
R3531 RAB4C103J-T 10K
EBI_CLK
BOOTCS_AMASK
BOOTCS_SIZE[1]
BOOTCS_SIZE[0]
BIGEND_LITEND
RESET_LENGTH[1]
RESET_LENGTH[0]
SPEED_SET[3]
SPEED_SET[2]
SPEED_SET[1]
SPEED_SET[0]
BOOTBUS_SIZE
+2.5V
DDR_DATA

BOOTCS_SIZE[1:0]	
00	64MB
01	16MB
10	8MB
11	4MB

RESET_LENGTH[1:0]	
00	-3usec
01	-50usec
10	-100usec
11	-200usec

EBI_CLK	MHz
H	27
L	40.5

BOOTBUS_SIZE	bit
H	16
L	8



Flash on 7115_EBI 128Mbit (EasyBGA)

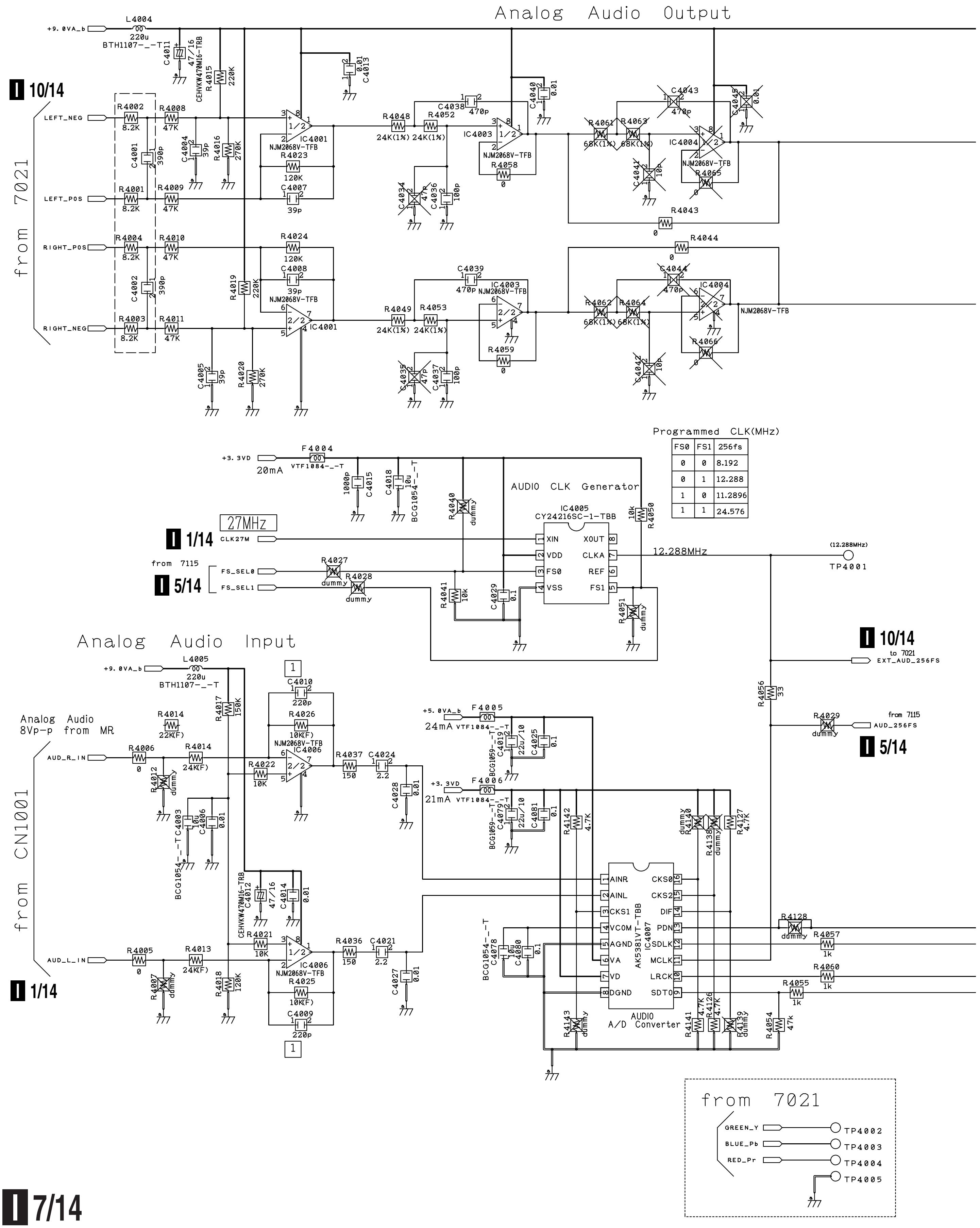
Address A23 is valid only on 128-Mbit desities and above; otherwise, it is a no connect(NC).
Address A24 is valid only on 256-Mbit density; otherwise, it is a no connect(NC).

28F128K3C	Power Sig
VCC	CORE POWER
VCCQ	I/O POWER
VSS	GROUND
VSSQ	I/O GROUND

from BCM7115 5/14
PC28F128K3C115-K
IC3503
ZCP10R
TP3502
R3544 dummy
R3545 10K
R3547 0
R3548 0
R3546 0
R3542 dummy
C3529 0.01
C3505 0.01
C3504 0.01
R3534 0
R3532 0
C3503 0.01
C3502 0.01
R3533 10K
R3526 dummy
R3543 0
R3530 dummy
A22 A18 VCC A13 VPEN A8 A6 A1
RFU A19 RFU A14 CE# A9 VSS A2
A21 A20 WP# A15 A12 A10 A7 A3
A17 A16 VCCQ VCCQ RST# A11 A5 A4
STS D15 CLK D4 D3 D9 D1 D8
OE# WAIT ADV# D12 D11 D10 D0 RFU
WE# D14 D6 D5 VCCQ D2 RFU 128M A23
NC D7 VSSQ D13 VSS VCC VSSQ RFU
PA[25:0]
PD[15:0]
Flash WP
IC3502
TC7WH02FU-TRB
C3501 0.01
R3502 4.7K
R3501 4.7K
R3549 dummy
from BUSBRIDGE
+3.3VD
FL_CS 9/14
CS0_SEL
pCS[8:0] 5/14 from BCM7115
CS1_SEL
FLASH_WP
RESET 5/14
EBI_RDB
EBI_WEB 5/14
from/to BCM7115 5/14
JTAG_TRST_E TXDB TXDA RESET JTAG_TDI_E
R3539 0
R3541 0
R3535 0
R3537 0
JTAG_TMS_E +5.0VD RXDB RXDA IRQ[4:0] JTAG_TCK_E JTAG_TDO_E
from/to BCM711

3.32 TUNER BOARD ASSY (7/14)

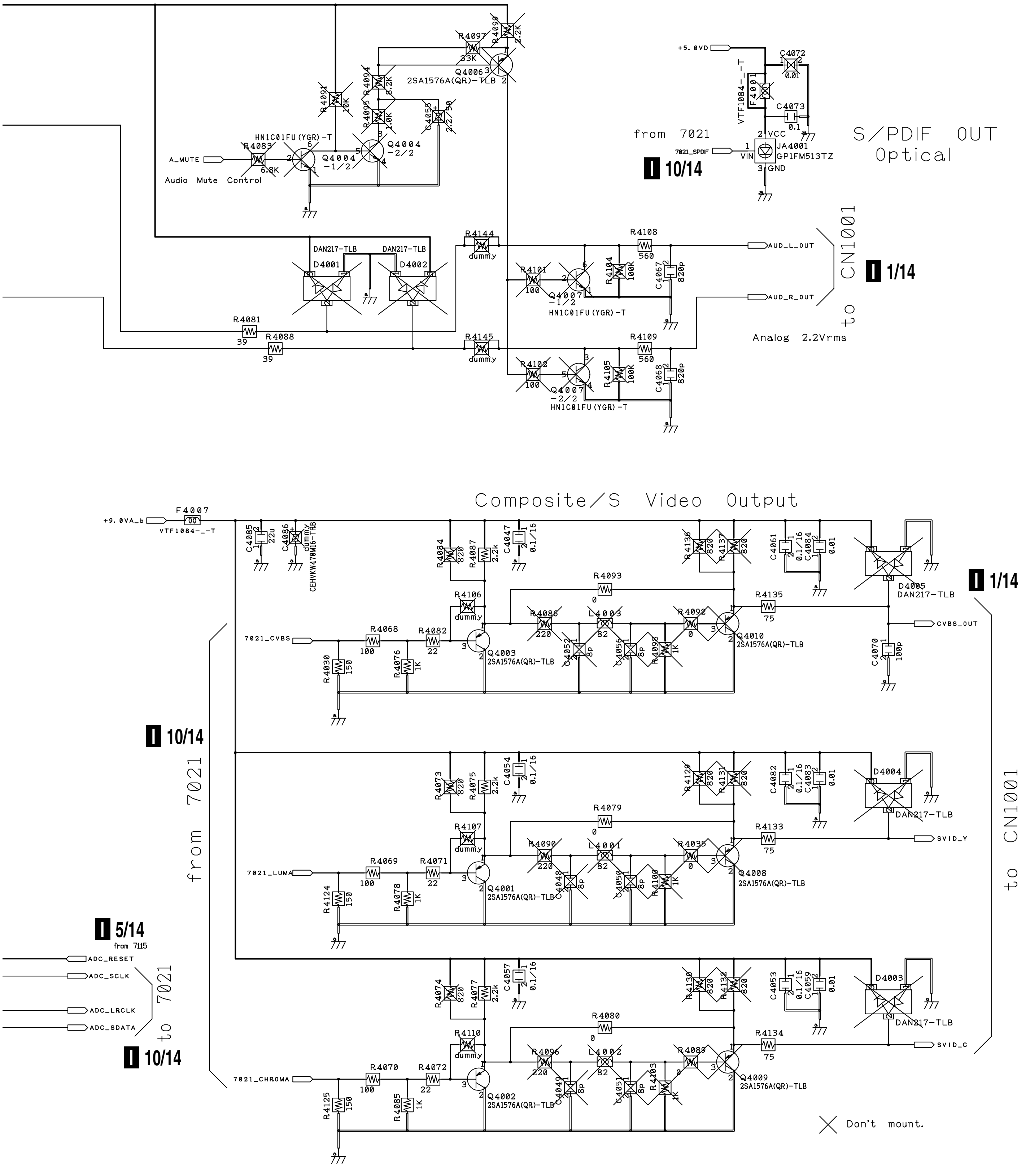
7/14 DTV TUNER BOARD ASSY (AWE1300)


Analog Audio Output
+9.0VA_b
L4004
220u
BTH1107-_-T
C4011
47/16
CEHVKW470M16-TRB
R4015
220K
C4013
0.01
10/14
from 7021
LEFT_NEG
LEFT_POS
RIGHT_POS
RIGHT_NEG
R4002 8.2K
R4001 8.2K
R4004 8.2K
R4003 8.2K
R4008 47K
R4009 47K
R4010 47K
R4011 47K
C4001 390p
C4002 390p
C4004 39p
C4005 39p
R4016 270K
R4019 220K
R4020 270K
IC4001
NJM2068V-TFB
R4023 120K
C4007 39p
R4024 120K
C4008 39p
R4048 24K(1%)
R4052 24K(1%)
R4049 24K(1%)
R4053 24K(1%)
C4038 470p
C4039 470p
C4034 47p
C4036 100p
C4035 47p
C4037 100p
IC4003
NJM2068V-TFB
R4058 0
R4059 0
C4040 0.01
R4061 68K(1%)
R4063 68K(1%)
R4062 68K(1%)
R4064 68K(1%)
C4043 470p
C4044 470p
C4045 0.01
C4041 10p
C4042 10p
IC4004
NJM2068V-TFB
R4065 0
R4066 0
R4043 0
R4044 0
+3.3VD
F4004
VTF1084-_-T
20mA
C4015 1000p
C4018 10u
BCG1054-_-T
R4040 dummy
AUDIO CLK Generator
IC4005
CY24216SC-1-TBB
XIN
VDD
FS0
VSS
XOUT
CLKA
REF
FS1
R4050 10k
27MHz
1/14
CLK27M
from 7115
5/14
FS_SEL0
FS_SEL1
R4027 dummy
R4028 dummy
R4041 10k
C4029 0.1
R4051 dummy
12.288MHz
(12.288MHz)
TP4001
10/14
to 7021
EXT_AUD_256FS
R4056 33
from 7115
R4029 dummy
AUD_256FS
5/14
Analog Audio Input
+9.0VA_b
L4005
220u
BTH1107-_-T
R4017 150K
C4010 220p
R4026 10K(F)
NJM2068V-TFB
IC4006
Analog Audio 8Vp-p from MR
from CN1001
AUD_R_IN
AUD_L_IN
R4006 0
R4014 22K(F)
R4014 24K(F)
R4012 dummy
R4022 10K
C4003
C4006 0.01
BCG1054-_-T
R4037 150
C4024 2.2
C4028 0.01
C4012 47/16
CEHVKW470M16-TRB
C4014 0.01
R4021 10K
R4005 0
R4013 24K(F)
R4007 dummy
R4018 120K
R4025 10K(F)
C4009 220p
R4036 150
C4021 2.2
C4027 0.01
1/14
+5.0VA_b
F4005
VTF1084-_-T
24mA
C4019 22u/10
C4025 0.1
BCG1059-_-T
+3.3VD
F4006
VTF1084-_-T
21mA
C4079 22u/10
C4081 0.1
R4142 4.7K
R4140 dummy
R4138 dummy
R4127 4.7K
AINR
AINL
CKS1
VCOM
AGND
VA
VD
DGND
CKS0
CKS2
DIF
PDN
SDLK
MCLK
LRCK
SDTO
AK5381VT-TBB
IC4007
AUDIO A/D Converter
BCG1054-_-T
C4078 10u
C4080 0.1
R4128 dummy
R4057 1k
R4060 1k
R4055 1k
R4143 dummy
R4141 4.7K
R4126 4.7K
R4139 dummy
R4054 47k
from 7021
GREEN_Y
BLUE_Pb
RED_Pr
TP4002
TP4003
TP4004
TP4005

Programmed CLK(MHz)

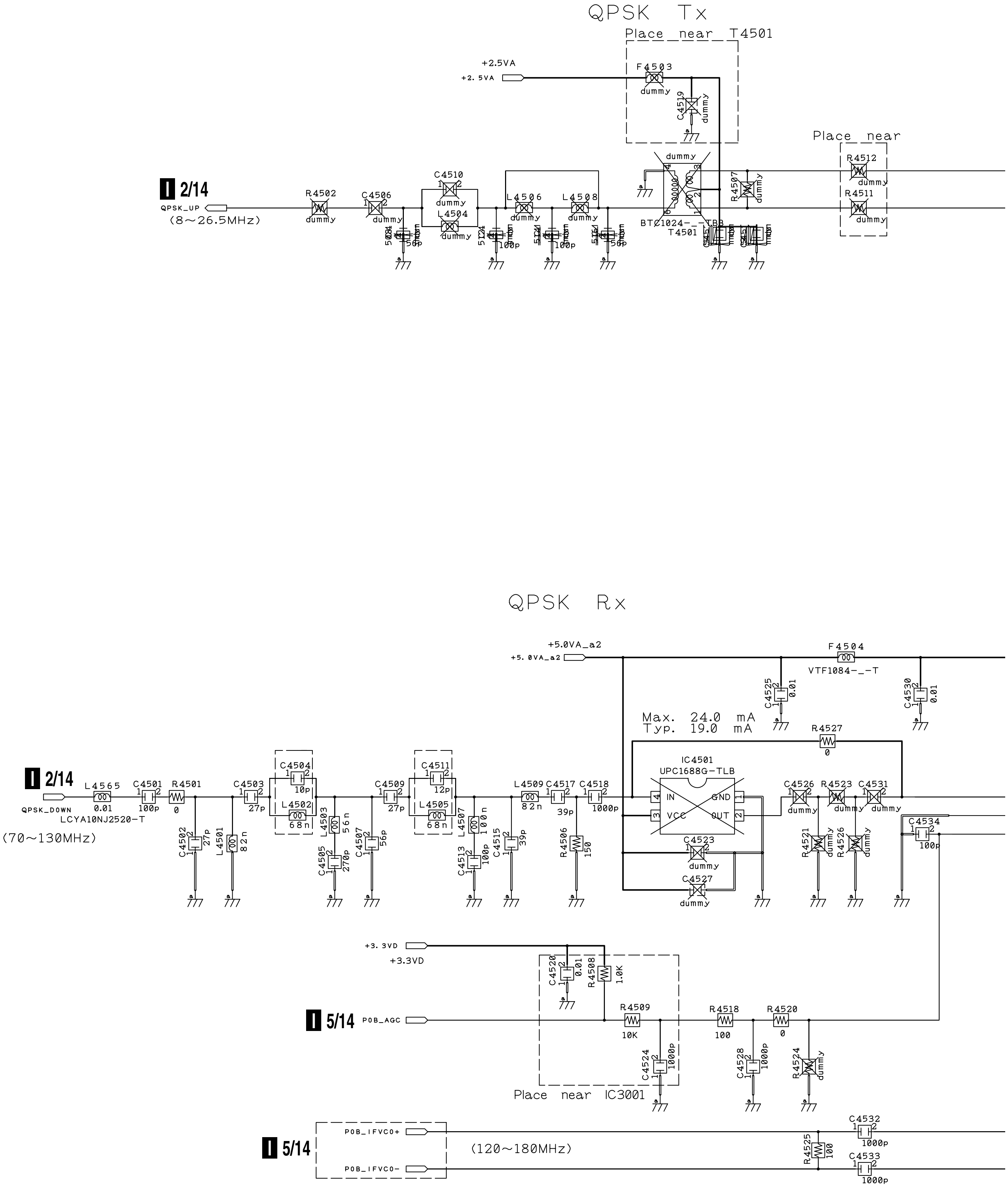
FS0	FS1	256fs
0	0	8.192
0	1	12.288
1	0	11.2896
1	1	24.576

7/14

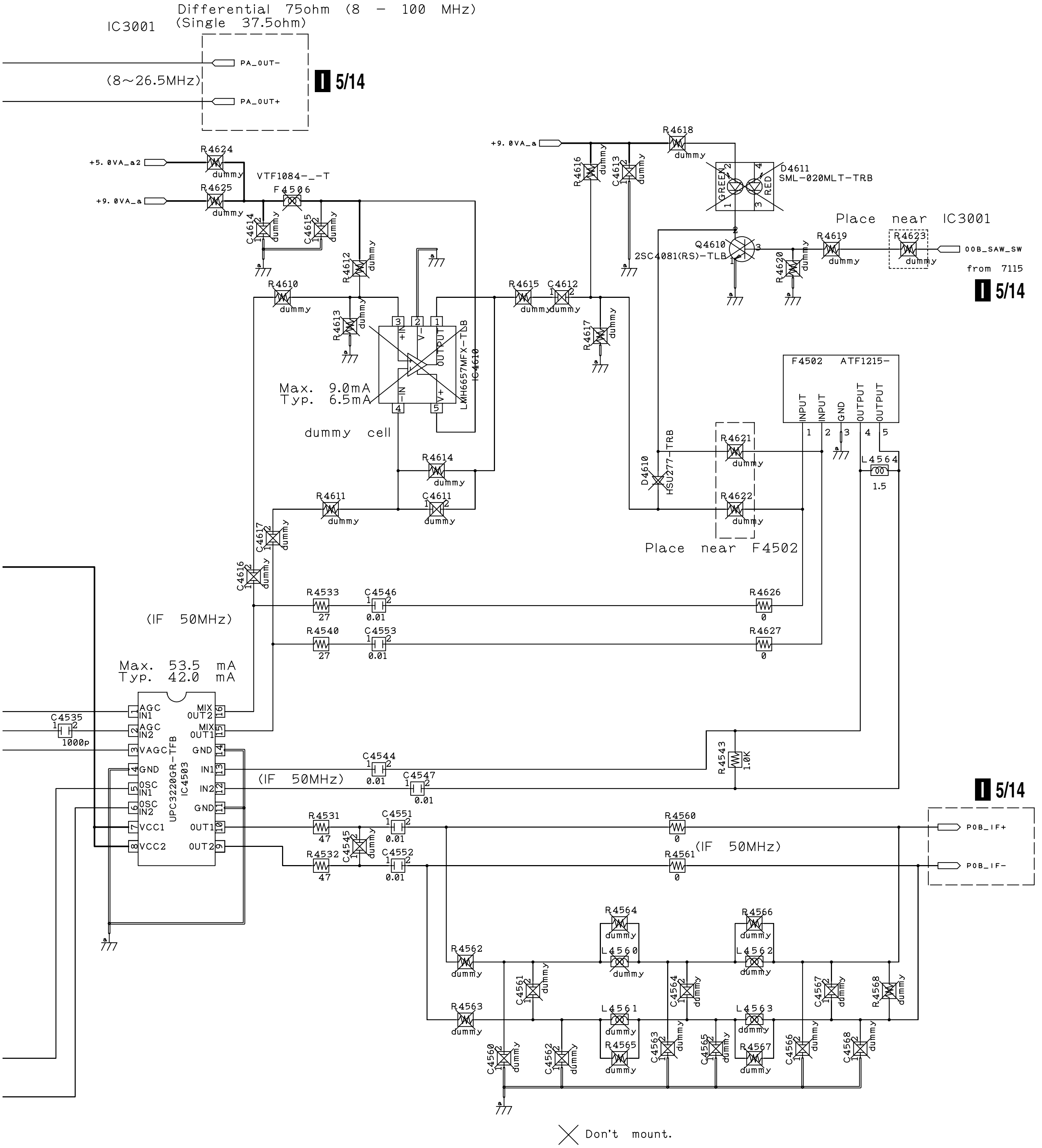

R4097
33K
R4099
2.2K
Q4006
2SA1576A(QR)-TLB
R4091
10K
R4094
8.2K
R4095
10K
C4055
2.2/50
HN1C01FU(YGR)-T
A_MUTE
R4083
6.8K
Q4004
-1/2
Q4004
-2/2
Audio Mute Control
+5.0VD
C4072
0.01
VTF1084-_-T
F4001
C4073
0.1
from 7021
7021_SPDIF
VCC
VIN
GND
JA4001
GP1FM513TZ
S/PDIF OUT
Optical
I 10/14
DAN217-TLB
DAN217-TLB
D4001
D4002
R4144
dummy
R4108
560
AUD_L_OUT
R4101
100
R4104
100k
C4067
820p
Q4007
-1/2
HN1C01FU(YGR)-T
AUD_R_OUT
to CN1001
I 1/14
R4081
39
R4088
39
R4145
dummy
R4109
560
Analog 2.2Vrms
R4102
100
R4105
100k
C4068
820p
Q4007
-2/2
HN1C01FU(YGR)-T
Composite/S Video Output
+9.0VA_b
F4007
VTF1084-_-T
C4085
22u
C4086
dummy
CEHVKW470M16-TRB
R4084
820
R4087
2.2k
C4047
0.1/16
R4136
820
R4137
820
C4061
0.1/16
C4084
0.01
D4005
DAN217-TLB
I 1/14
R4093
0
R4106
dummy
R4086
220
L4003
82
R4092
0
R4135
75
CVBS_OUT
7021_CVBS
R4068
100
R4082
22
Q4003
2SA1576A(QR)-TLB
C4052
8p
C4056
8p
R4098
1K
Q4010
2SA1576A(QR)-TLB
C4070
100p
R4030
150
R4076
1K
I 10/14
from 7021
R4073
820
R4075
2.2k
C4054
0.1/16
R4129
820
R4131
820
C4082
0.1/16
C4083
0.01
D4004
DAN217-TLB
R4079
0
R4107
dummy
R4090
220
L4001
82
R4035
0
R4133
75
SVID_Y
7021_LUMA
R4069
100
R4071
22
Q4001
2SA1576A(QR)-TLB
C4048
8p
C4050
8p
R4100
1K
Q4008
2SA1576A(QR)-TLB
R4124
150
R4078
1K
to CN1001
I 5/14
from 7115
ADC_RESET
ADC_SCLK
ADC_LRCLK
ADC_SDATA
to 7021
I 10/14
R4074
820
R4077
2.2k
C4057
0.1/16
R4130
820
R4132
820
C4053
0.1/16
C4059
0.01
D4003
DAN217-TLB
R4080
0
R4110
dummy
R4096
220
L4002
82
R4089
0
R4134
75
SVID_C
7021_CHROMA
R4070
100
R4072
22
Q4002
2SA1576A(QR)-TLB
C4049
8p
C4051
8p
R4103
1K
Q4009
2SA1576A(QR)-TLB
R4125
150
R4085
1K
Don't mount.

3.33 TUNER BOARD ASSY (8/14)

8/14 DTV TUNER BOARD ASSY (AWE1300)


QPSK Tx
Place near T4501
+2.5VA
+2.5VA
F4503
dummy
C4519
dummy
Place near
R4512
dummy
R4511
dummy
2/14
QPSK_UP
(8～26.5MHz)
R4502
dummy
C4506
dummy
C4510
dummy
L4504
dummy
L4506
dummy
L4508
dummy
dummy
56p
100p
100p
56p
BTC1024-_-TB3
T4501
R4507
dummy
QPSK Rx
+5.0VA_a2
+5.0VA_a2
F4504
VTF1084-_-T
C4525
0.01
C4530
0.01
Max. 24.0 mA
Typ. 19.0 mA
R4527
0
IC4501
UPC1688G-TLB
IN
GND
VCC
OUT
2/14
QPSK_DOWN
L4565
0.01
LCYA10NJ2520-T
(70～130MHz)
C4501
100p
R4501
0
C4502
27p
L4501
82n
C4503
27p
C4504
10p
L4502
68n
L4503
56n
C4505
270p
C4507
56p
C4509
27p
C4511
12p
L4505
68n
L4507
100n
C4513
100p
C4515
39p
L4509
82n
C4517
39p
C4518
1000p
R4506
150
C4523
dummy
C4527
dummy
C4526
dummy
R4523
dummy
C4531
dummy
C4534
100p
R4521
dummy
R4526
dummy
+3.3VD
+3.3VD
C4520
0.01
R4508
1.0K
5/14
P0B_AGC
R4509
10K
C4524
1000p
Place near IC3001
R4518
100
C4528
1000p
R4520
0
R4524
dummy
5/14
P0B_IFVCO+
P0B_IFVCO-
(120～180MHz)
R4525
100
C4532
1000p
C4533
1000p

8/14


Differential 75ohm (8 – 100 MHz)
(Single 37.5ohm)
IC3001
PA_OUT-
(8~26.5MHz)
PA_OUT+
5/14
+5.0VA_a2
+9.0VA_a
R4624
dummy
R4625
dummy
VTF1084-_-T
F4506
C4614
dummy
C4615
dummy
R4612
dummy
R4610
dummy
R4613
dummy
IC4610
LMH6657MFX-TLB
+IN
V-
OUTPUT
-IN
V+
Max. 9.0mA
Typ. 6.5mA
dummy cell
R4614
dummy
R4611
dummy
C4611
dummy
C4617
dummy
C4616
dummy
+9.0VA_a
R4618
dummy
R4616
dummy
C4613
dummy
D4611
SML-020MLT-TRB
GREEN
RED
Place near IC3001
Q4610
2SC4081(RS)-TLB
R4619
dummy
R4623
dummy
OOB_SAW_SW
from 7115
R4620
dummy
5/14
R4615
dummy
C4612
dummy
R4617
dummy
F4502 ATF1215-
INPUT
INPUT
GND
OUTPUT
OUTPUT
D4610
HSU277-TRB
R4621
dummy
R4622
dummy
L4564
1.5
Place near F4502
R4533
27
C4546
0.01
R4626
0
R4540
27
C4553
0.01
R4627
0
(IF 50MHz)
Max. 53.5 mA
Typ. 42.0 mA
C4535
1000p
IC4503
UPC3220GR-TFB
AGC IN1
AGC IN2
VAGC
GND
OSC IN1
OSC IN2
VCC1
VCC2
MIX OUT2
MIX OUT1
GND
IN1
IN2
GND
OUT1
OUT2
C4544
0.01
(IF 50MHz)
C4547
0.01
R4543
1.0K
5/14
R4531
47
C4551
0.01
C4545
dummy
R4532
47
C4552
0.01
R4560
0
(IF 50MHz)
R4561
0
POB_IF+
POB_IF-
R4564
dummy
L4560
dummy
R4566
dummy
L4562
dummy
R4562
dummy
C4561
dummy
C4564
dummy
C4567
dummy
R4568
dummy
R4563
dummy
L4561
dummy
R4565
dummy
L4563
dummy
R4567
dummy
C4560
dummy
C4562
dummy
C4563
dummy
C4565
dummy
C4566
dummy
C4568
dummy

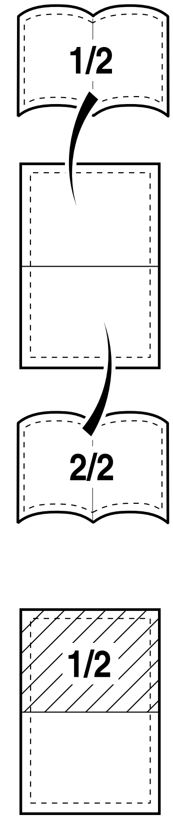
✕ Don't mount.

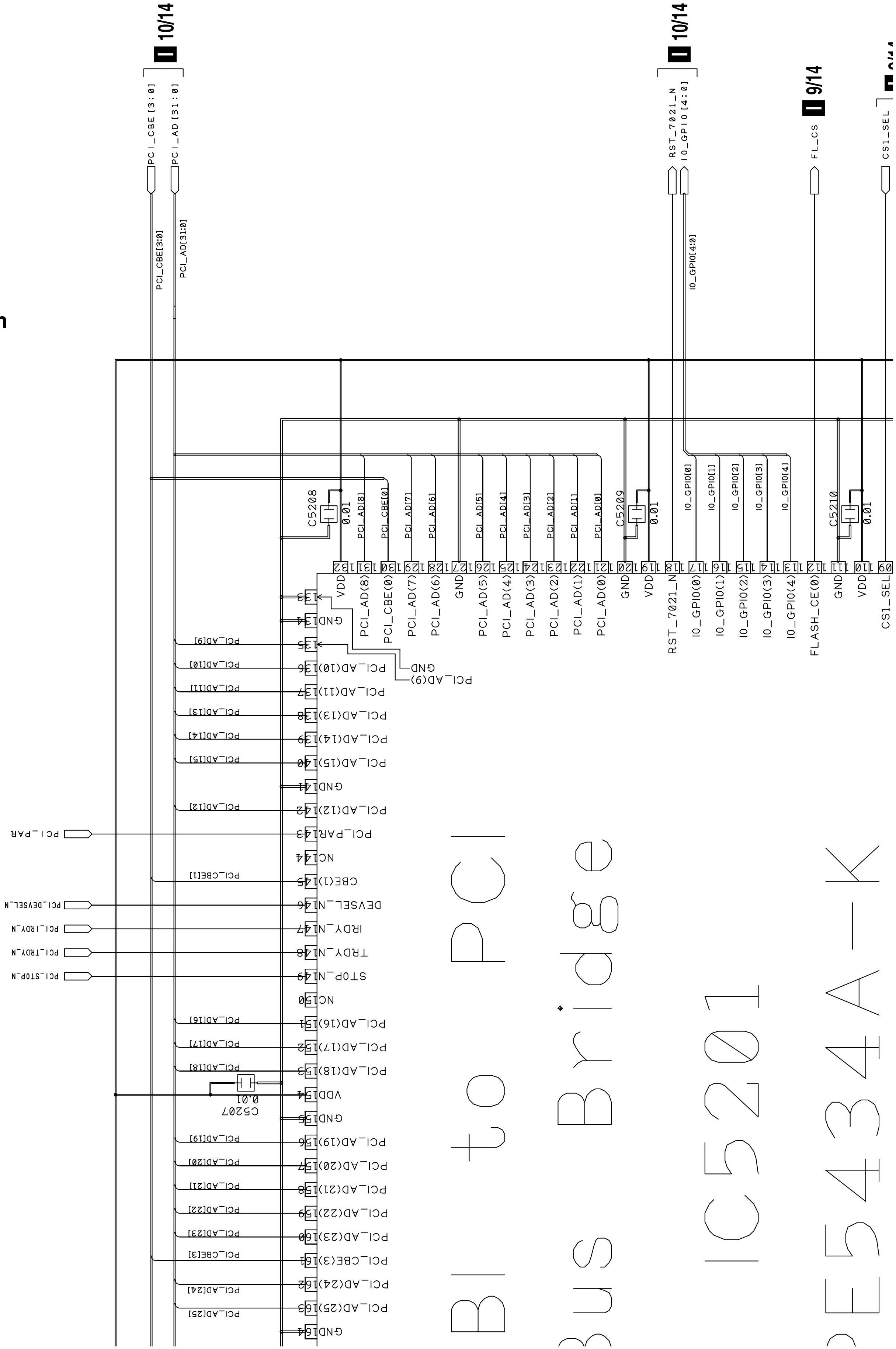
I 8/14

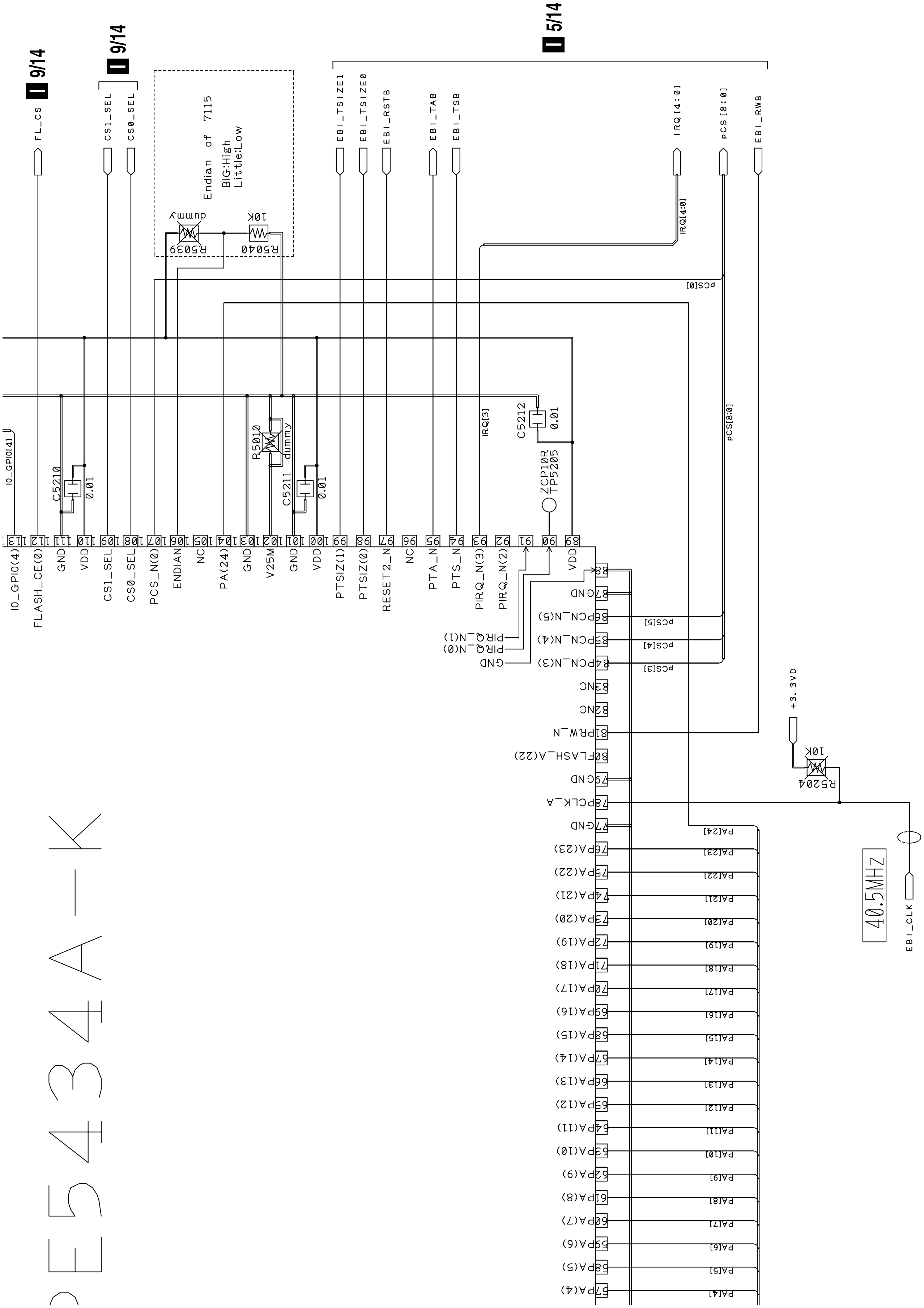
3.34 TUNER BOARD ASSY (9/14)

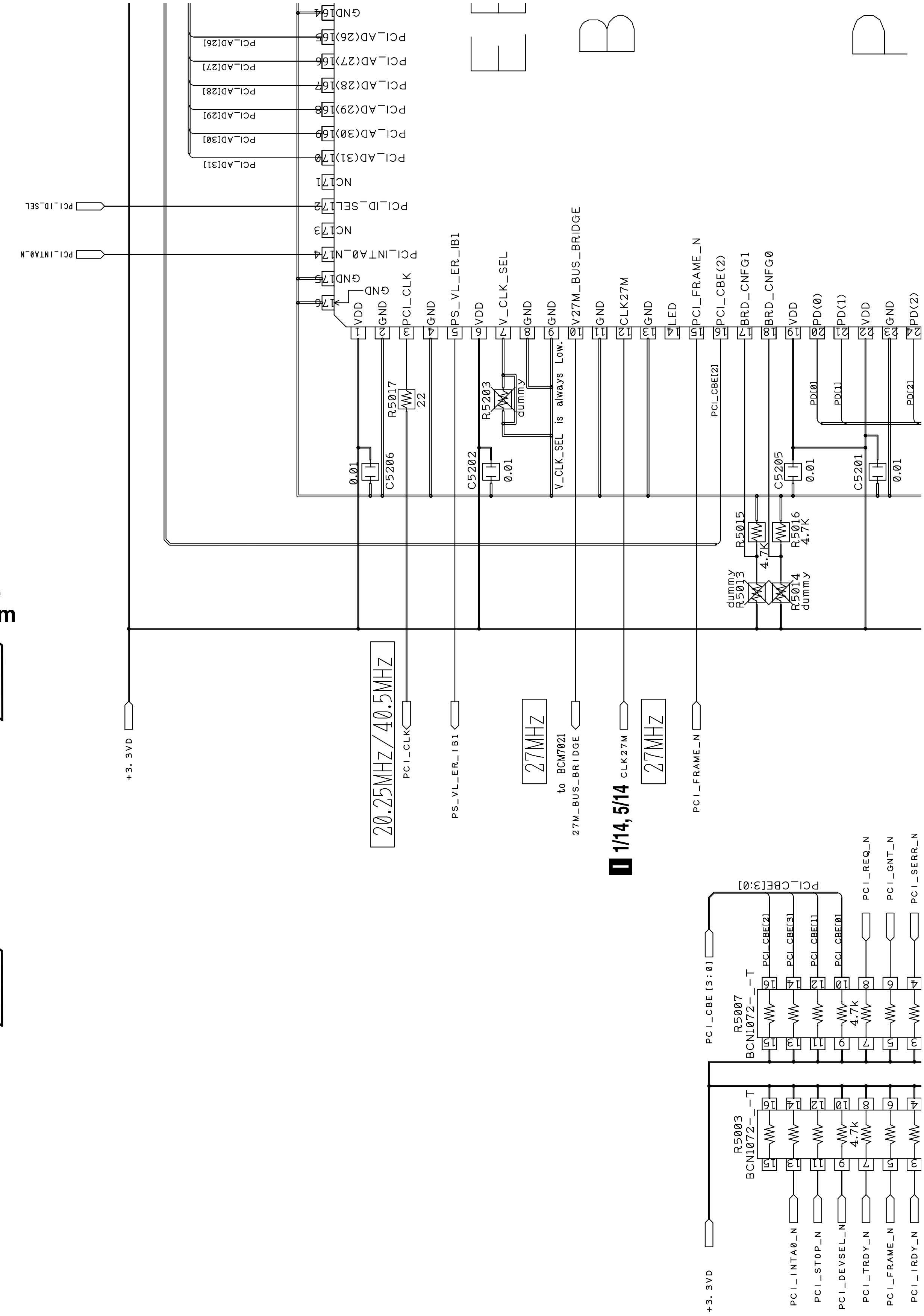
I 9/14 TUNER BOARD ASSY (AWE1300)

Large size SCH diagram

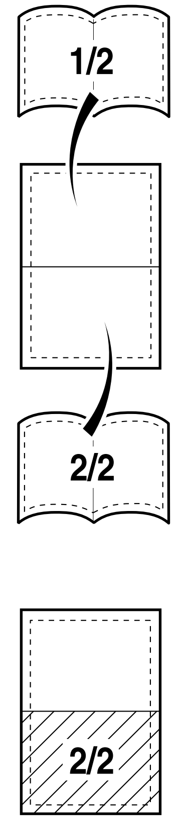


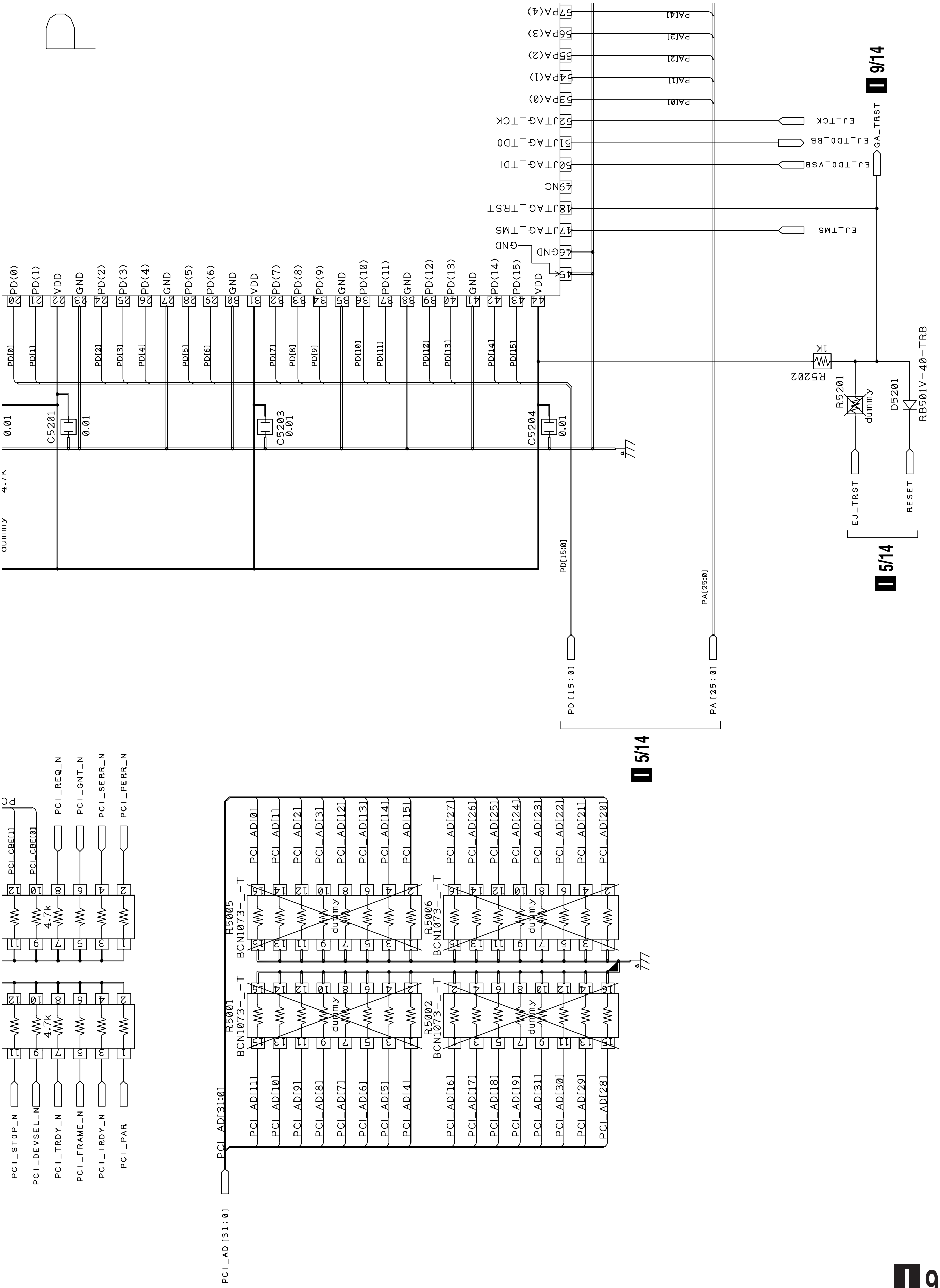

I 10/14
PCI_CBE[3:0]
PCI_AD[31:0]
I 10/14
RST_7021_N
IO_GPIO[4:0]
I 9/14
FL_CS
CS1_SEL
C5208 0.01
C5209 0.01
C5210 0.01
C5207 0.01
VDD
PCI_AD(8)
PCI_CBE(0)
PCI_AD(7)
PCI_AD(6)
GND
PCI_AD(5)
PCI_AD(4)
PCI_AD(3)
PCI_AD(2)
PCI_AD(1)
PCI_AD(0)
GND
VDD
RST_7021_N
IO_GPIO(0)
IO_GPIO(1)
IO_GPIO(2)
IO_GPIO(3)
IO_GPIO(4)
FLASH_CE(0)
GND
VDD
CS1_SEL
GND
PCI_AD(9)
PCI_AD(10)
PCI_AD(11)
PCI_AD(13)
PCI_AD(14)
PCI_AD(15)
GND
PCI_AD(12)
PCI_PAR
NC
CBE(1)
DEVSEL_N
IRDY_N
TRDY_N
STOP_N
NC
PCI_AD(16)
PCI_AD(17)
PCI_AD(18)
VDD
GND
PCI_AD(19)
PCI_AD(20)
PCI_AD(21)
PCI_AD(22)
PCI_AD(23)
PCI_CBE(3)
PCI_AD(24)
PCI_AD(25)
GND
PCI_PAR
PCI_DEVSEL_N
PCI_IRDY_N
PCI_TRDY_N
PCI_STOP_N
PCI Bus Bridge
IC5201
PCI to
E5434A-K


9/14
FL_CS
9/14
CS1_SEL
CS0_SEL
Endian of 7115
BIG:High
Little:Low
R5039
dummy
R5040
10K
5/14
EBI_TSIZE1
EBI_TSIZE0
EBI_RSTB
EBI_TAB
EBI_TSB
IRQ[4:0]
PCS[8:0]
EBI_RWB
IRQ[4:0]
PCS[0]
IRQ[3]
PCS[8:0]
IO_GPIO[4]
C5210
0.01
R5010
dummy
C5211
0.01
C5212
0.01
ZCP10R
TP5205
113 IO_GPIO(4)
112 FLASH_CE(0)
111 GND
110 VDD
109 CS1_SEL
108 CS0_SEL
107 PCS_N(0)
106 ENDIAN
105 NC
104 PA(24)
103 GND
102 V25M
101 GND
100 VDD
99 PTSIZ(1)
98 PTSIZ(0)
97 RESET2_N
96 NC
95 PTA_N
94 PTS_N
93 PIRQ_N(3)
92 PIRQ_N(2)
91
90
89 VDD
PIRQ_N(1)
PIRQ_N(0)
GND
88
87 GND
86 PCN_N(5)
85 PCN_N(4)
84 PCN_N(3)
83 NC
82 NC
81 PRW_N
80 FLASH_A(22)
79 GND
78 PCLK_A
77 GND
76 PA(23)
75 PA(22)
74 PA(21)
73 PA(20)
72 PA(19)
71 PA(18)
70 PA(17)
69 PA(16)
68 PA(15)
67 PA(14)
66 PA(13)
65 PA(12)
64 PA(11)
63 PA(10)
62 PA(9)
61 PA(8)
60 PA(7)
59 PA(6)
58 PA(5)
57 PA(4)
PCS[5]
PCS[4]
PCS[3]
PA[24]
PA[23]
PA[22]
PA[21]
PA[20]
PA[19]
PA[18]
PA[17]
PA[16]
PA[15]
PA[14]
PA[13]
PA[12]
PA[11]
PA[10]
PA[9]
PA[8]
PA[7]
PA[6]
PA[5]
PA[4]
+3.3VD
R5204
10K
40.5MHz
EBI_CLK
E5434A-K


GND164
PCI_AD(26)165
PCI_AD(27)166
PCI_AD(28)167
PCI_AD(29)168
PCI_AD(30)169
PCI_AD(31)170
NC171
PCI_ID_SEL172
NC173
PCI_INTA0_N174
GND175
GND 176
PCI_AD[26]
PCI_AD[27]
PCI_AD[28]
PCI_AD[29]
PCI_AD[30]
PCI_AD[31]
PCI_ID_SEL
PCI_INTA0_N
1 VDD
2 GND
3 PCI_CLK
4 GND
5 PS_VL_ER_IB1
6 VDD
7 V_CLK_SEL
8 GND
9 GND
10 V27M_BUS_BRIDGE
11 GND
12 CLK27M
13 GND
14 LED
15 PCI_FRAME_N
16 PCI_CBE(2)
17 BRD_CNFG1
18 BRD_CNFG0
19 VDD
20 PD(0)
21 PD(1)
22 VDD
23 GND
24 PD(2)
R5017 22
R5203 dummy
V_CLK_SEL is always Low.
PCI_CBE[2]
PD[0]
PD[1]
PD[2]
C5206 0.01
C5202 0.01
C5205 0.01
C5201 0.01
R5015 4.7K
R5016 4.7K
R5013 dummy
R5014 dummy
+3.3VD
20.25MHz/40.5MHz
PCI_CLK
PS_VL_ER_IB1
27MHz
to BCM7021
27M_BUS_BRIDGE
CLK27M
27MHz
PCI_FRAME_N
1/14, 5/14
PCI_CBE[3:0]
PCI_CBE[3:0]
PCI_CBE[2]
PCI_CBE[3]
PCI_CBE[1]
PCI_CBE[0]
PCI_REQ_N
PCI_GNT_N
PCI_SERR_N
R5007 BCN1072-_-T 4.7k
16 14 12 10 8 6 4
15 13 11 9 7 5 3
R5003 BCN1072-_-T 4.7k
16 14 12 10 8 6 4
15 13 11 9 7 5 3
+3.3VD
PCI_INTA0_N
PCI_STOP_N
PCI_DEVSEL_N
PCI_TRDY_N
PCI_FRAME_N
PCI_IRDY_N

Large size SCH diagram



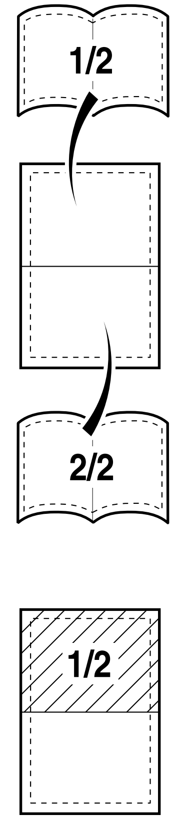


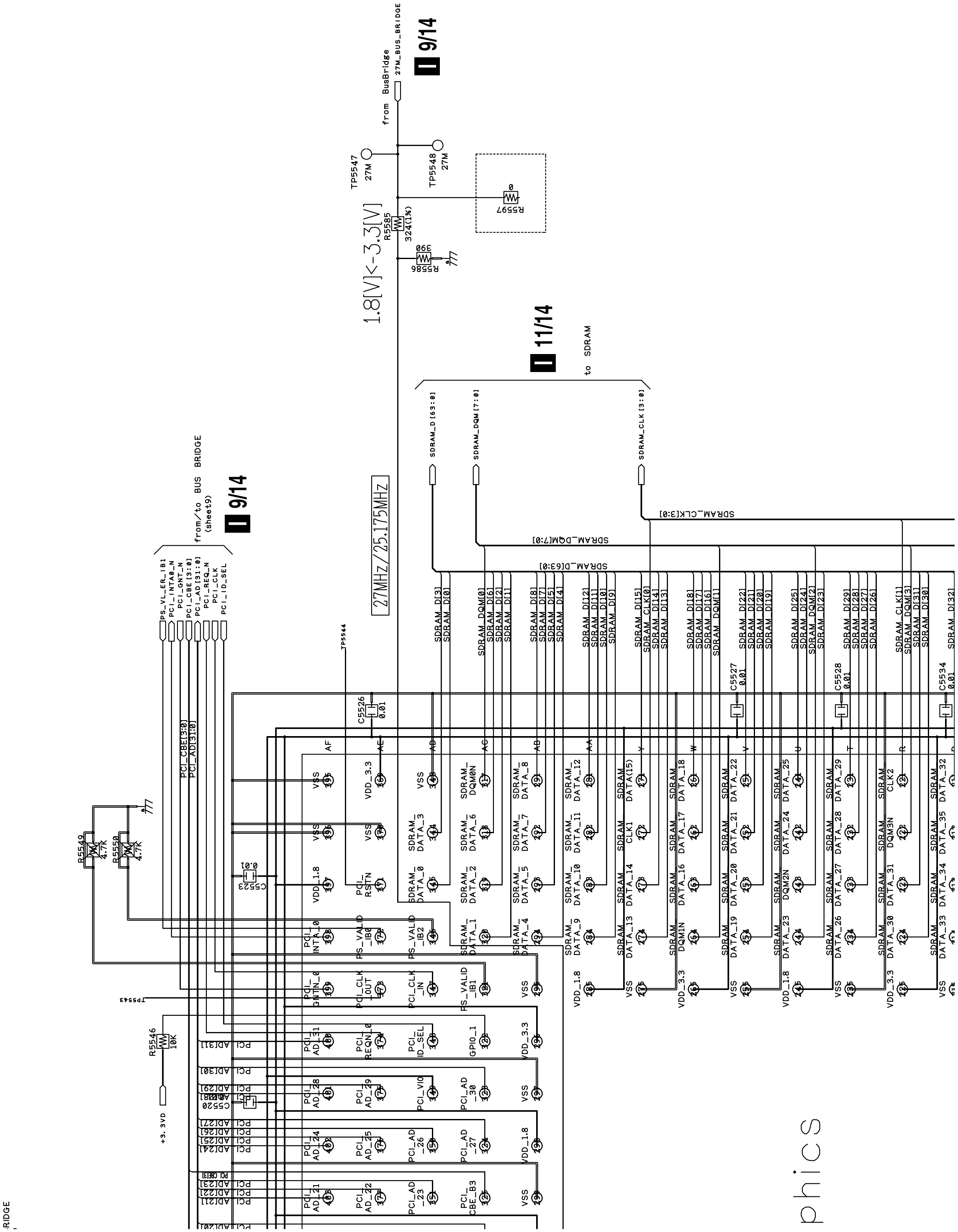
PA(4)
PA(3)
PA(2)
PA(1)
PA(0)
JTAG_TCK
JTAG_TDO
JTAG_TDI
NC
JTAG_TRST
JTAG_TMS
GND
EJ_TCK
EJ_TDO_BB
EJ_TDO_VSB
EJ_TMS
GA_TRST
9/14
PD(0)
PD(1)
VDD
GND
PD(2)
PD(3)
PD(4)
PD(5)
PD(6)
PD(7)
PD(8)
PD(9)
PD(10)
PD(11)
PD(12)
PD(13)
PD(14)
PD(15)
C5201
0.01
C5203
0.01
C5204
0.01
R5202
1K
R5201
dummy
D5201
RB501V-40-TRB
EJ_TRST
RESET
5/14
PD[15:0]
PA[25:0]
5/14
PCI_REQ_N
PCI_GNT_N
PCI_SERR_N
PCI_PERR_N
PCI_CBE[1]
PCI_CBE[0]
4.7k
PCI_STOP_N
PCI_DEVSEL_N
PCI_TRDY_N
PCI_FRAME_N
PCI_IRDY_N
PCI_PAR
R5005
BCN1073-_-T
R5006
BCN1073-_-T
R5001
BCN1073-_-T
R5002
BCN1073-_-T
dummy
PCI_AD[0]
PCI_AD[1]
PCI_AD[2]
PCI_AD[3]
PCI_AD[12]
PCI_AD[13]
PCI_AD[14]
PCI_AD[15]
PCI_AD[27]
PCI_AD[26]
PCI_AD[25]
PCI_AD[24]
PCI_AD[23]
PCI_AD[22]
PCI_AD[21]
PCI_AD[20]
PCI_AD[11]
PCI_AD[10]
PCI_AD[9]
PCI_AD[8]
PCI_AD[7]
PCI_AD[6]
PCI_AD[5]
PCI_AD[4]
PCI_AD[16]
PCI_AD[17]
PCI_AD[18]
PCI_AD[19]
PCI_AD[31]
PCI_AD[30]
PCI_AD[29]
PCI_AD[28]
PCI_AD[31:0]

3.35 TUNER BOARD ASSY (10/14)

I 10/14 TUNER BOARD ASSY (AWE1300)

Large size SCH diagram





I 9/14
from BusBridge
27M_BUS_BRIDGE
TP5547
27M
TP5548
27M
R5597
0
R5585
324(1%)
R5586
390
1.8[V]<-3.3[V]
I 11/14
to SDRAM
SDRAM_D[63:0]
SDRAM_DQM[7:0]
SDRAM_CLK[3:0]
27MHz/25.175MHz
from/to BUS BRIDGE
(sheet9)
I 9/14
PS_VL_ER_IB1
PCI_INTA0_N
PCI_GNT_N
PCI_CBE[3:0]
PCI_AD[31:0]
PCI_REQ_N
PCI_CLK
PCI_ID_SEL
TP5544
C5526
0.01
C5527
0.01
C5528
0.01
C5534
0.01
C5523
0.01
C5520
R5549
4.7K
R5550
4.7K
R5546
10K
+3.3VD
TP5549
PCI_CBE[3:0]
PCI_AD[31:0]
VSS
VDD_3.3
VDD_1.8
PCI_RSTN
PCI_INTA_0
PCI_GNTN_0
PCI_CLK_OUT
PCI_CLK_IN
PCI_REQN_0
PCI_ID_SEL
PCI_AD_31
PCI_AD_28
PCI_AD_29
PCI_VIO
PCI_AD_30
PCI_AD_24
PCI_AD_25
PCI_AD_26
PCI_AD_27
PCI_AD_21
PCI_AD_22
PCI_AD_23
PCI_CBE_B3
PS_VALID_IB0
PS_VALID_IB2
PS_VALID_IB1
GPIO_1
SDRAM_DQM0N
SDRAM_DATA_0
SDRAM_DATA_1
SDRAM_DATA_2
SDRAM_DATA_3
SDRAM_DATA_4
SDRAM_DATA_5
SDRAM_DATA_6
SDRAM_DATA_7
SDRAM_DATA_8
SDRAM_DATA_9
SDRAM_DATA_10
SDRAM_DATA_11
SDRAM_DATA_12
SDRAM_DATA_13
SDRAM_DATA_14
SDRAM_DATA(15)
SDRAM_CLK1
SDRAM_DATA_16
SDRAM_DATA_17
SDRAM_DATA_18
SDRAM_DQM1N
SDRAM_DATA_19
SDRAM_DATA_20
SDRAM_DATA_21
SDRAM_DATA_22
SDRAM_DATA_23
SDRAM_DQM2N
SDRAM_DATA_24
SDRAM_DATA_25
SDRAM_DATA_26
SDRAM_DATA_27
SDRAM_DATA_28
SDRAM_DATA_29
SDRAM_CLK2
SDRAM_DQM3N
SDRAM_DATA_30
SDRAM_DATA_31
SDRAM_DATA_32
SDRAM_DATA_33
SDRAM_DATA_34
SDRAM_DATA_35
AF
AE
AD
AC
AB
AA
Y
W
V
U
T
R

phics

A

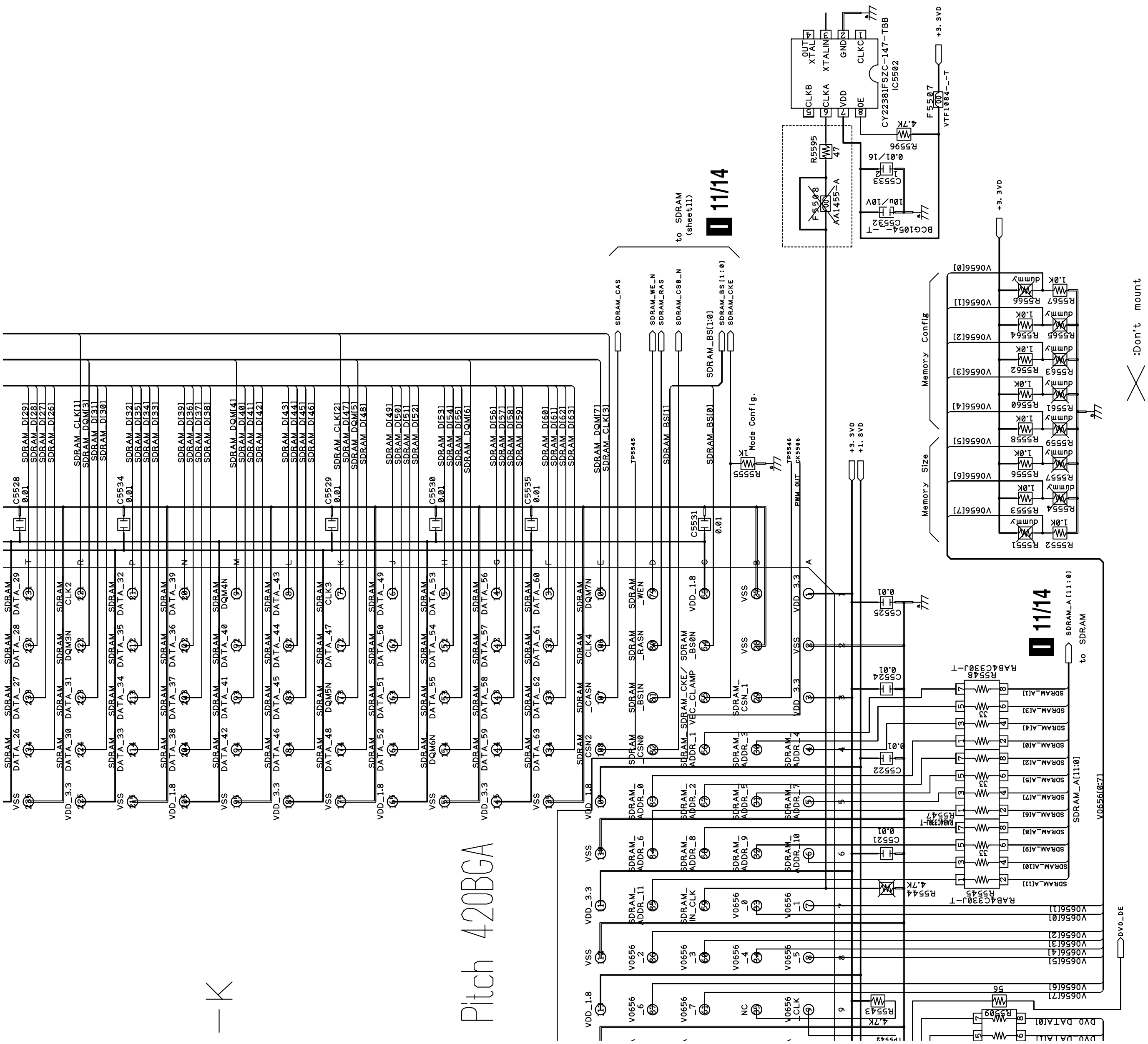
B

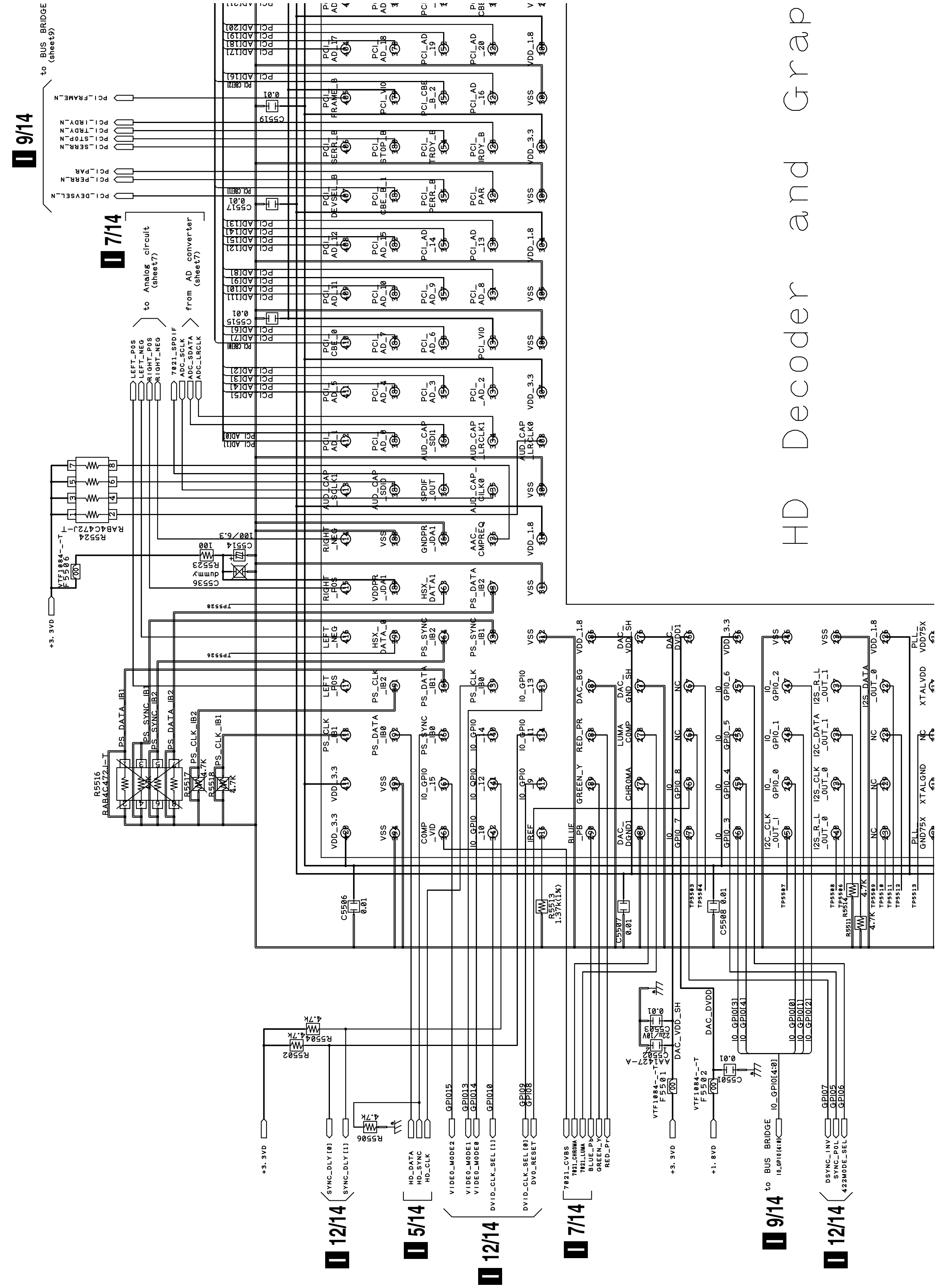
C

D

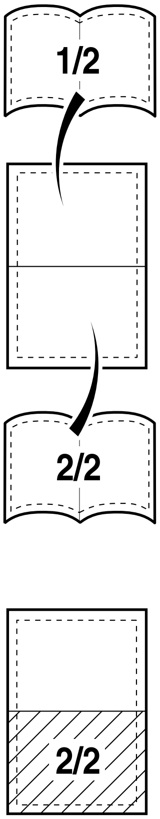
E

F

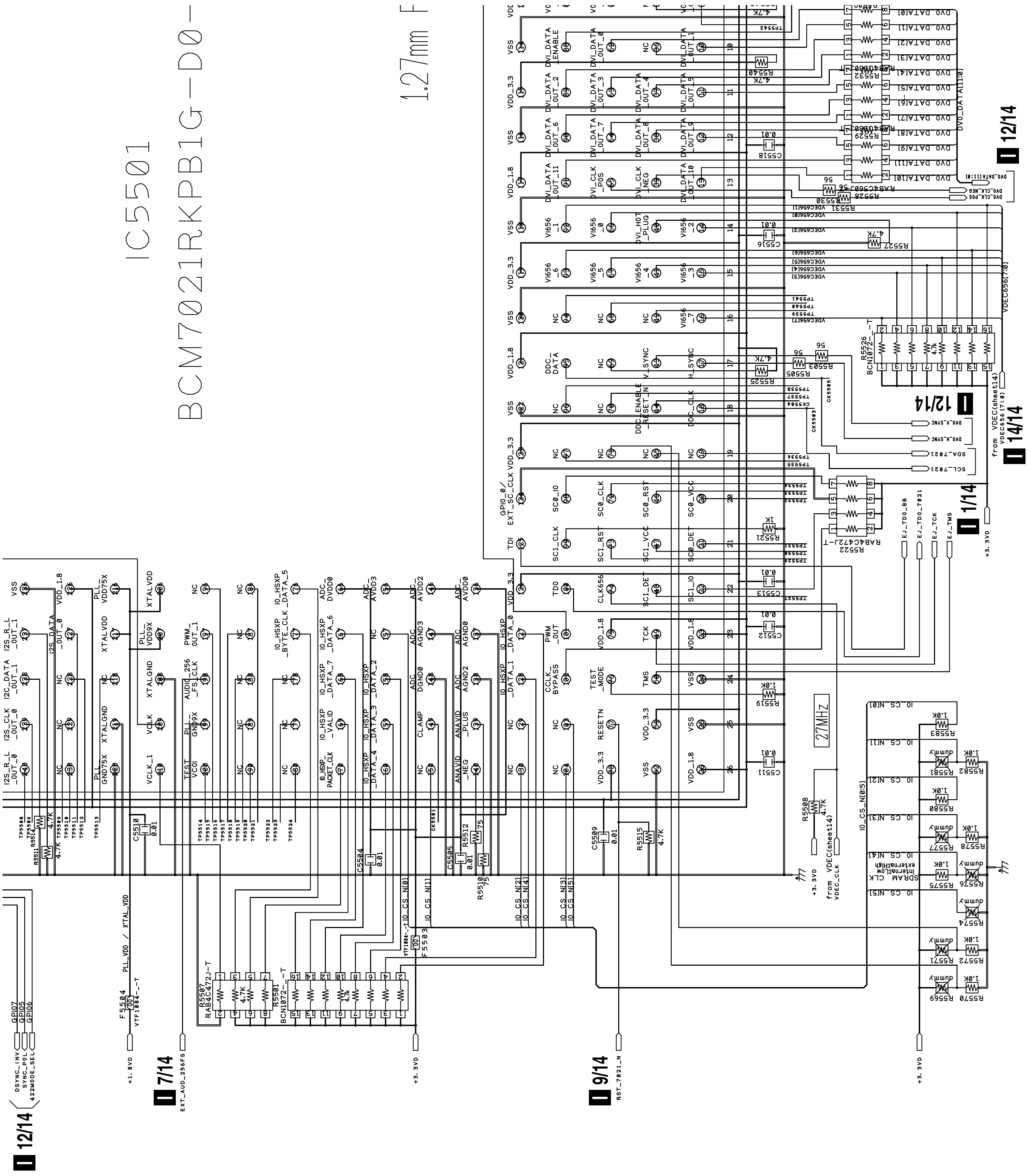

Pitch 420BGA
11/14
to SDRAM (sheet11)
SDRAM_CAS
SDRAM_WE_N
SDRAM_RAS
SDRAM_CS0_N
SDRAM_BS[1:0]
SDRAM_CKE
SDRAM_BS[1]
SDRAM_BS[0]
Mode Config.
R5555
TP5945
TP5946
PWM_OUT
+3.3VD
+1.8VD
C5528 0.01
C5534 0.01
C5529 0.01
C5530 0.01
C5535 0.01
C5531 0.01
C5525 0.01
C5524 0.01
C5522 0.01
C5521 0.01
R5544 4.7K
R5543 4.7K
R5548 RAB4C330J-T
R5547 RAB4C330J-T
R5545 RAB4C330J-T
R5509 56
SDRAM_A[11:0]
V0656[0:7]
DVO_DE
DVO_DATA[0]
DVO_DATA[1]
CY2381FSZC-147-TBB
IC5502
CLKB
CLKA
VDD
OE
OUT XTAL
XTALIN
GND
CLKC
R5595 47
R5596 4.7K
F5508
AA1455-A
C5533 0.01/16
C5532 10u/10V
BCG1054--T
F5507
VTF1084--T
+3.3VD
Memory Config
Memory Size
R5551 R5552 R5553 R5554 R5556 R5557 R5558 R5559 R5560 R5561 R5562 R5563 R5564 R5565 R5566 R5567
1.0K
dummy
V0656[0]
V0656[1]
V0656[2]
V0656[3]
V0656[4]
V0656[5]
V0656[6]
V0656[7]
:Don't mount
VSS
VDD_3.3
VDD_1.8
SDRAM_DATA_26
SDRAM_DATA_27
SDRAM_DATA_28
SDRAM_DATA_29
SDRAM_CLK2
SDRAM_DQM3N
SDRAM_CLK3
SDRAM_CLK4
SDRAM_DQM7N
SDRAM_CSN2
SDRAM_CASN
SDRAM_CSN0
SDRAM_CSN1
SDRAM_BS0N
SDRAM_BS1N
SDRAM_RASN
SDRAM_WEN
SDRAM_IN_CLK
V0656_CLK
NC


HD Decoder and Grap
9/14
to BUS BRIDGE (sheet9)
PCI_FRAME_N
PCI_IRDY_N
PCI_TRDY_N
PCI_STOP_N
PCI_SERR_N
PCI_PAR
PCI_PERR_N
PCI_DEVSEL_N
7/14
to Analog circuit (sheet7)
from AD converter (sheet7)
LEFT_POS
LEFT_NEG
RIGHT_POS
RIGHT_NEG
7021_SPDIF
ADC_SCLK
ADC_SDATA
ADC_LRCLK
C5519 0.01
C5517 0.01
C5515 0.01
R5524 RAB4C472J-T
F5506 VTF1084-T
C5514 100/6.3
R5523 100
C5536 dummy
+3.3VD
TP5528
TP5526
R5516 RAB4C472J-T
R5517 4.7K
R5518 4.7K
PS_DATA_IB1
PS_SYNC_IB1
PS_SYNC_IB2
PS_DATA_IB2
PS_CLK_IB2
PS_CLK_IB1
C5506 0.01
R5513 1.37k(1%)
C5507 0.01
C5508 0.01
R5511 4.7K
R5514 4.7K
R5502
R5504 4.7K
R5506 4.7K
C5503 0.01
C5502 22u/10V
F5501 VTF1084-T
C5501 0.01
F5502 VTF1084-T
DAC_VDD_SH
DAC_DVDD
IO_GPIO[4:0]
+3.3VD
SYNC_DLY[0]
SYNC_DLY[1]
12/14
HD_DATA
HD_SYNC
HD_CLK
5/14
GPIO15
GPIO13
GPIO14
GPIO10
VIDEO_MODE2
VIDEO_MODE1
VIDEO_MODE0
DVID_CLK_SEL[1]
12/14
GPIO9
GPIO8
DVID_CLK_SEL[0]
DVO_RESET
7021_CVBS
7021_CHROMA
7021_LUMA
BLUE_Pb
GREEN_Y
RED_Pr
7/14
+3.3VD
+1.8VD
to BUS BRIDGE
IO_GPIO[4:0]
9/14
GPIO7
GPIO5
GPIO6
DSYNC_INV
SYNC_POL
422MODE_SEL
12/14

Large size SCH diagram

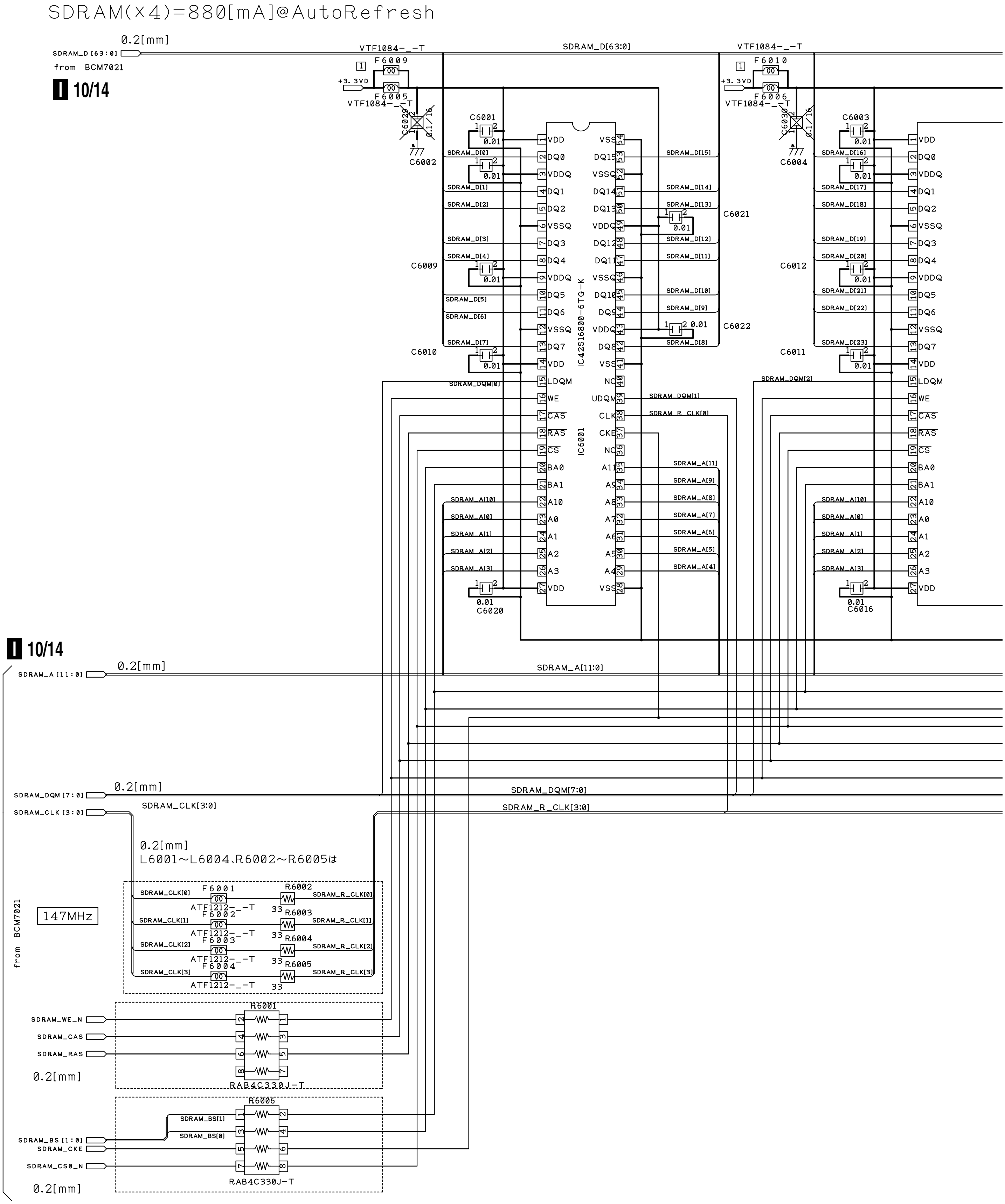


10/14


IC5501
BCM7021RKPB1G-D0-
1.27mm F
27MHz
12/14
14/14
1/14
7/14
9/14
DVO_DATA[11:0]
DVO_CLK_NEG
DVO_CLK_POS
DVO_V_SYNC
DVO_H_SYNC
SDA_7021
SCL_7021
from VDEC(sheet14)
VDEC656[7:0]
EJ_TDO_BB
EJ_TDO_7021
EJ_TCK
EJ_TMS
+3.3VD
+1.8VD
DSYNC_INV
SYNC_POL
422MODE_SEL
GPIO7
GPIO5
GPIO6
PLL_VDD / XTAL_VDD
EXT_AUD_256FS
RST_7021_N
IO_CS_N[0:5]
SDRAM CLK
internal:Low
external:High
from VDEC(sheet14)
VDEC_CLK
R5507 RAB4C472J-T
R5501 BCN1072-_-T
R5526 BCN1072-_-T
R5522 RAB4C472J-T
F5504 VTF1084-_-T
F5503 VTF1084-_-T
C5509 0.01
C5510 0.01
C5504 0.01
C5505 0.01
C5511 0.01
C5512 0.01
C5513 0.01
C5516 0.01
C5518 0.01
R5508 4.7K
R5515 4.7K
R5519 1.0K
R5521 1K
R5525 4.7K
R5527 4.7K
R5540 4.7K
R5505 56
R5503 56
R5530 56
R5528 56
R5510 75
R5512 75
R5511 4.7K
R5514 4.7K
R5569 dummy
R5570 1.0K
R5571 dummy
R5572 1.0K
R5574 dummy
R5575 1.0K
R5576 dummy
R5577 dummy
R5578 1.0K
R5580 1.0K
R5581 dummy
R5582 1.0K
R5583 1.0K

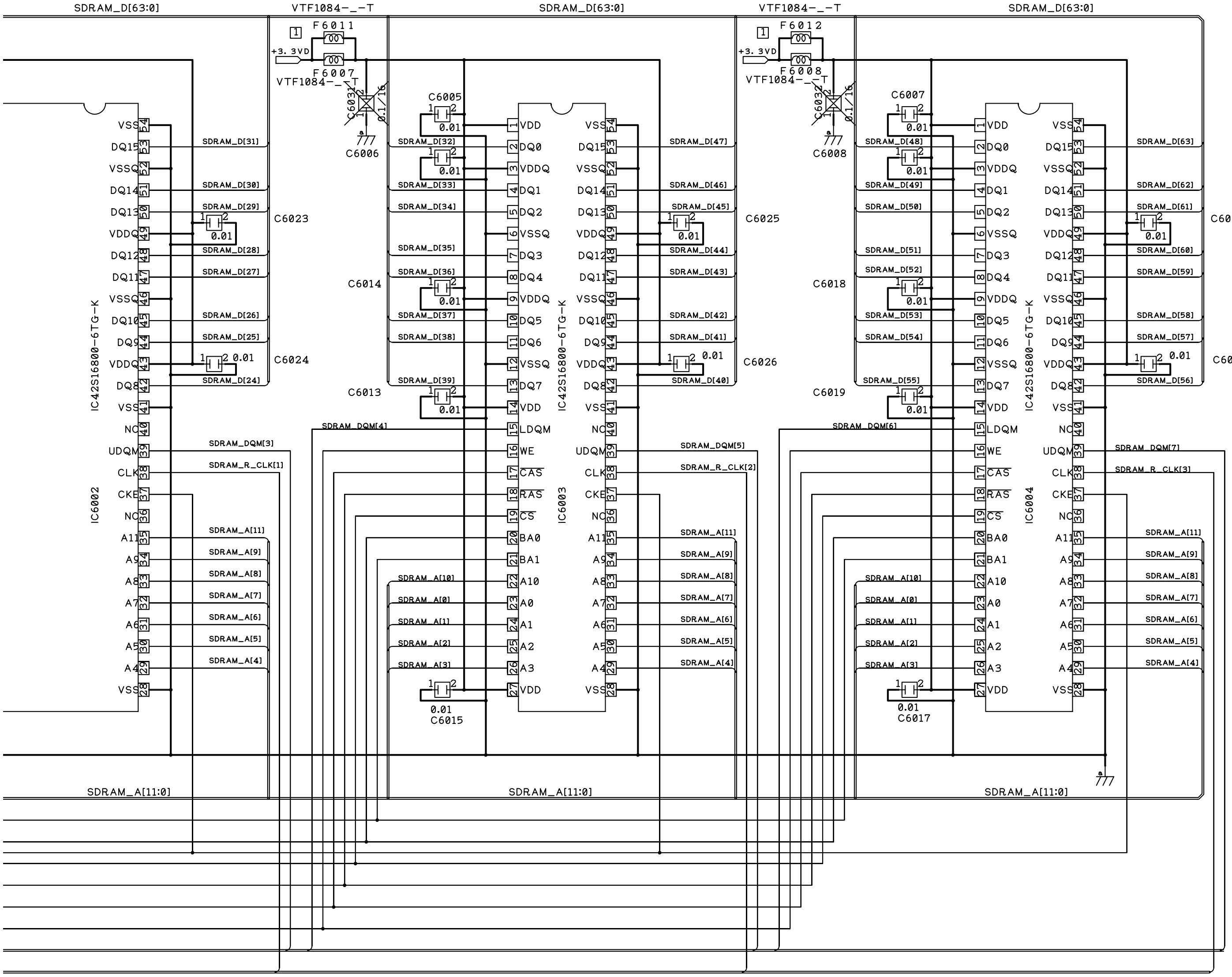
3.36 TUNER BOARD ASSY (11/14)

I 11/14 DTV TUNER BOARD ASSY (AWE1300)


SDRAM(x4)=880[mA]@AutoRefresh
0.2[mm]
SDRAM_D[63:0]
from BCM7021
I 10/14
VTF1084-_-T
F6009
F6005
F6010
F6006
+3.3VD
C6029
C6030
ø1/16
C6002
C6004
C6001
C6003
0.01
SDRAM_D[63:0]
IC6001
IC42S16800-6TG-K
1 VDD
2 DQ0
3 VDDQ
4 DQ1
5 DQ2
6 VSSQ
7 DQ3
8 DQ4
9 VDDQ
10 DQ5
11 DQ6
12 VSSQ
13 DQ7
14 VDD
15 LDQM
16 WE
17 CAS
18 RAS
19 CS
20 BA0
21 BA1
22 A10
23 A0
24 A1
25 A2
26 A3
27 VDD
28 VSS
29 A4
30 A5
31 A6
32 A7
33 A8
34 A9
35 A11
36 NC
37 CKE
38 CLK
39 UDQM
40 NC
41 VSS
42 DQ8
43 VDDQ
44 DQ9
45 DQ10
46 VSSQ
47 DQ11
48 DQ12
49 VDDQ
50 DQ13
51 DQ14
52 VSSQ
53 DQ15
54 VSS
SDRAM_D[0]
SDRAM_D[1]
SDRAM_D[2]
SDRAM_D[3]
SDRAM_D[4]
SDRAM_D[5]
SDRAM_D[6]
SDRAM_D[7]
SDRAM_D[8]
SDRAM_D[9]
SDRAM_D[10]
SDRAM_D[11]
SDRAM_D[12]
SDRAM_D[13]
SDRAM_D[14]
SDRAM_D[15]
SDRAM_D[16]
SDRAM_D[17]
SDRAM_D[18]
SDRAM_D[19]
SDRAM_D[20]
SDRAM_D[21]
SDRAM_D[22]
SDRAM_D[23]
C6009
C6010
C6021
C6022
C6012
C6011
C6020
C6016
SDRAM_DQM[0]
SDRAM_DQM[1]
SDRAM_DQM[2]
SDRAM_R_CLK[0]
SDRAM_A[0]
SDRAM_A[1]
SDRAM_A[2]
SDRAM_A[3]
SDRAM_A[4]
SDRAM_A[5]
SDRAM_A[6]
SDRAM_A[7]
SDRAM_A[8]
SDRAM_A[9]
SDRAM_A[10]
SDRAM_A[11]
I 10/14
SDRAM_A[11:0]
SDRAM_DQM[7:0]
SDRAM_CLK[3:0]
SDRAM_DQM[7:0]
SDRAM_R_CLK[3:0]
L6001~L6004、R6002~R6005は
from BCM7021
147MHz
SDRAM_CLK[0]
SDRAM_CLK[1]
SDRAM_CLK[2]
SDRAM_CLK[3]
F6001
F6002
F6003
F6004
ATF1212-_-T
R6002
R6003
R6004
R6005
33
SDRAM_R_CLK[0]
SDRAM_R_CLK[1]
SDRAM_R_CLK[2]
SDRAM_R_CLK[3]
SDRAM_WE_N
SDRAM_CAS
SDRAM_RAS
R6001
RAB4C330J-T
SDRAM_BS[1:0]
SDRAM_BS[1]
SDRAM_BS[0]
SDRAM_CKE
SDRAM_CS0_N
R6006
RAB4C330J-T

I 11/14

SDRAM on BCM7021
128Mbit x 4pcs

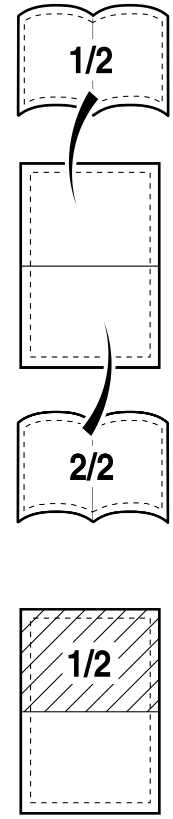


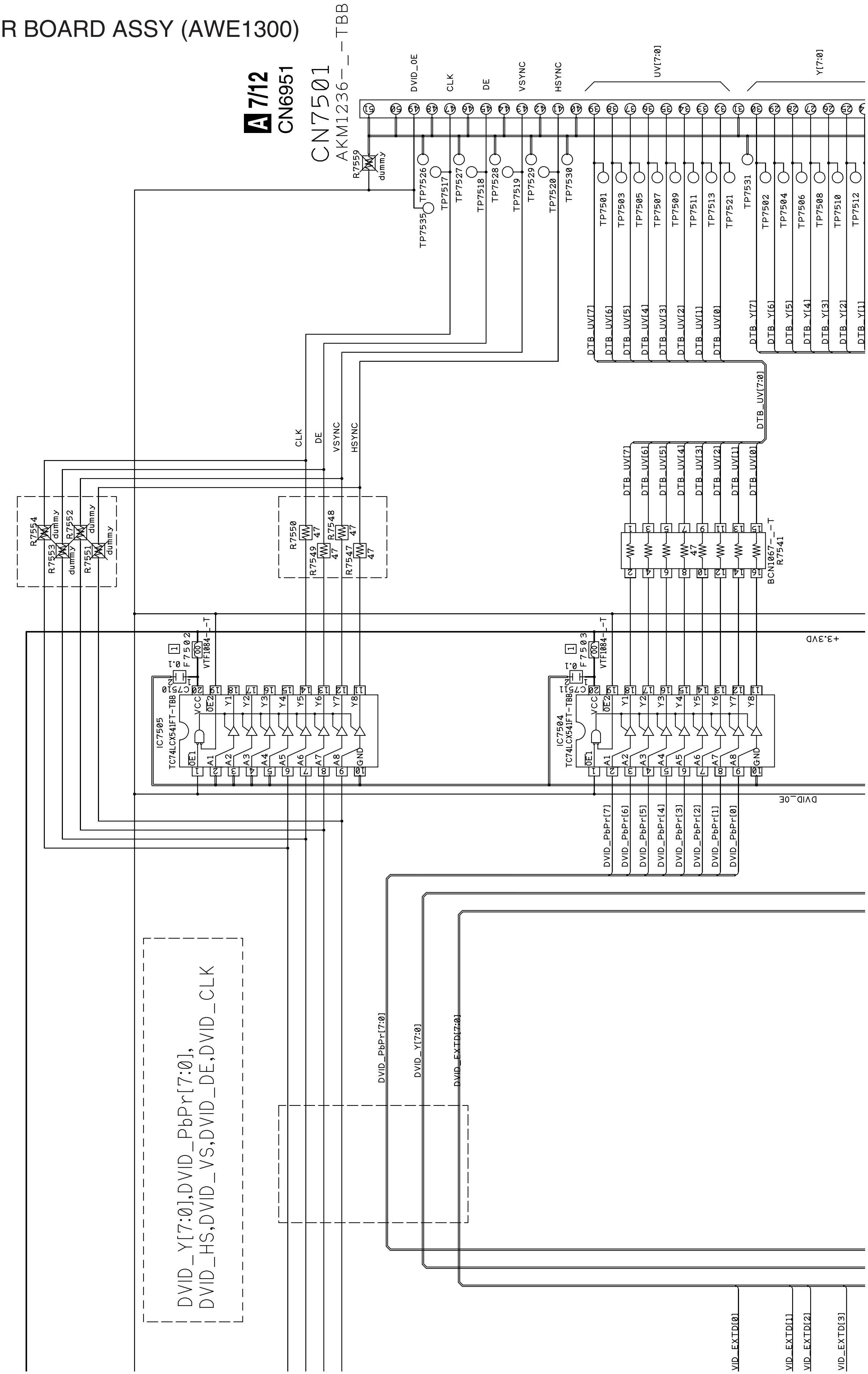
SDRAM_D[63:0]
VTF1084-_-T
F6011
F6007
+3.3VD
C6031
0.1/16
C6006
C6005
0.01
F6012
F6008
C6032
C6008
C6007
IC6002
IC42S16800-6TG-K
VSS
DQ15
VSSQ
DQ14
DQ13
VDDQ
DQ12
DQ11
DQ10
DQ9
DQ8
NC
UDQM
CLK
CKE
A11
A9
A8
A7
A6
A5
A4
SDRAM_D[31]
SDRAM_D[30]
SDRAM_D[29]
SDRAM_D[28]
SDRAM_D[27]
SDRAM_D[26]
SDRAM_D[25]
SDRAM_D[24]
C6023
C6024
SDRAM_DQM[3]
SDRAM_R_CLK[1]
SDRAM_A[11]
SDRAM_A[9]
SDRAM_A[8]
SDRAM_A[7]
SDRAM_A[6]
SDRAM_A[5]
SDRAM_A[4]
IC6003
VDD
DQ0
VDDQ
DQ1
DQ2
VSSQ
DQ3
DQ4
DQ5
DQ6
DQ7
LDQM
WE
CAS
RAS
CS
BA0
BA1
A10
A0
A1
A2
A3
SDRAM_D[32]
SDRAM_D[33]
SDRAM_D[34]
SDRAM_D[35]
SDRAM_D[36]
SDRAM_D[37]
SDRAM_D[38]
SDRAM_D[39]
C6014
C6013
C6015
SDRAM_DQM[4]
SDRAM_A[10]
SDRAM_A[0]
SDRAM_A[1]
SDRAM_A[2]
SDRAM_A[3]
SDRAM_D[47]
SDRAM_D[46]
SDRAM_D[45]
SDRAM_D[44]
SDRAM_D[43]
SDRAM_D[42]
SDRAM_D[41]
SDRAM_D[40]
C6025
C6026
SDRAM_DQM[5]
SDRAM_R_CLK[2]
IC6004
SDRAM_D[48]
SDRAM_D[49]
SDRAM_D[50]
SDRAM_D[51]
SDRAM_D[52]
SDRAM_D[53]
SDRAM_D[54]
SDRAM_D[55]
C6018
C6019
C6017
SDRAM_DQM[6]
SDRAM_D[63]
SDRAM_D[62]
SDRAM_D[61]
SDRAM_D[60]
SDRAM_D[59]
SDRAM_D[58]
SDRAM_D[57]
SDRAM_D[56]
C6027
C6028
SDRAM_DQM[7]
SDRAM_R_CLK[3]
SDRAM_A[11:0]

3.37 TUNER BOARD ASSY (12/14)

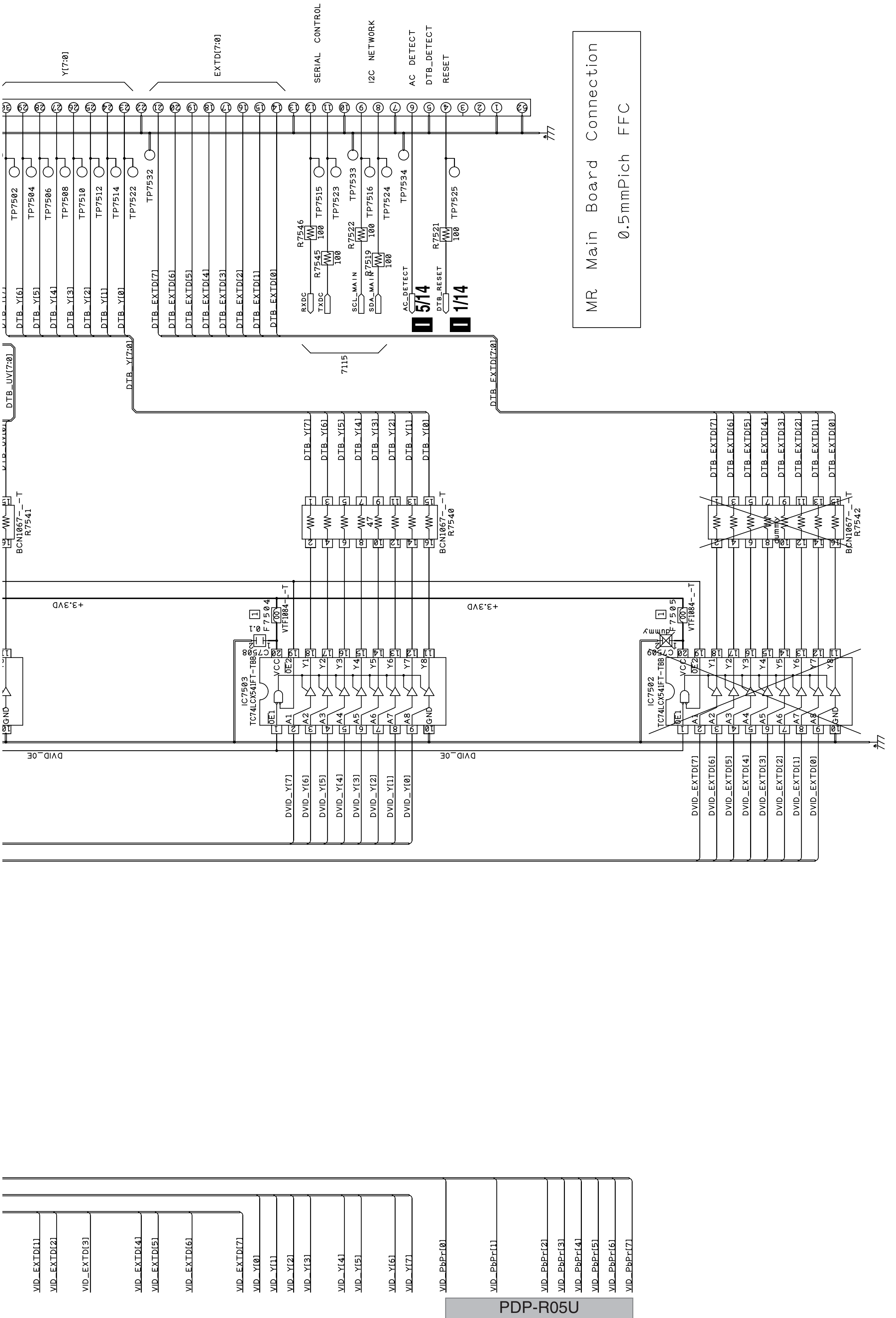
I 12/14 TUNER BOARD ASSY (AWE1300)

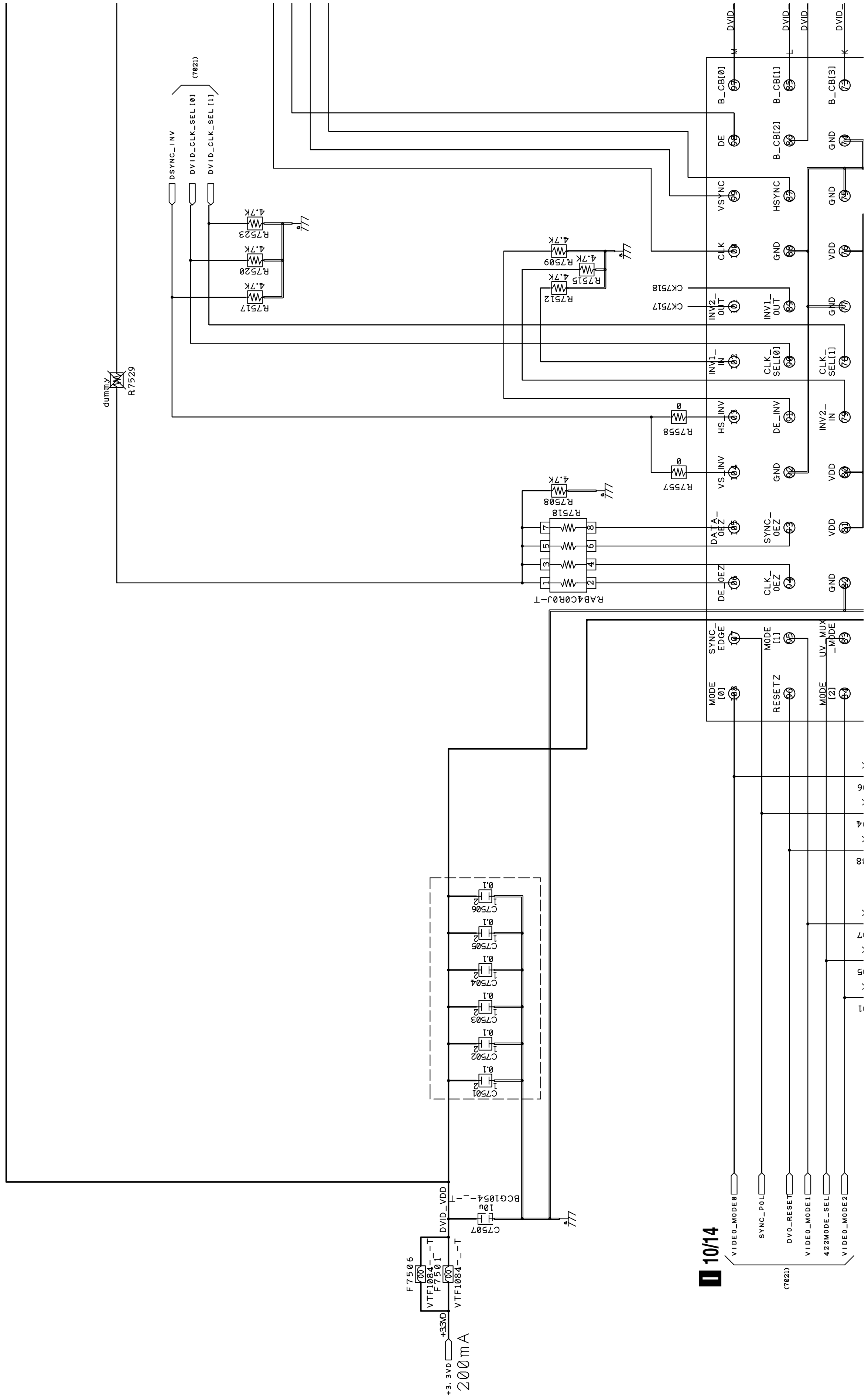
Large size SCH diagram



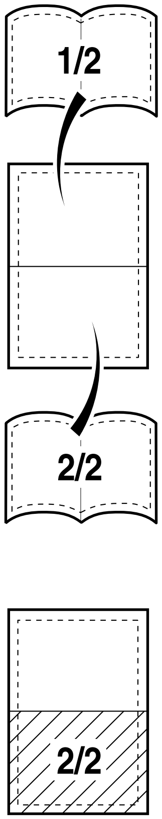


A 7/12
CN6951
CN7501
AKM1236-_-TBB
DVID_OE
CLK
DE
VSYNC
HSYNC
UV[7:0]
Y[7:0]
R7559
dummy
TP7526
TP7535
TP7517
TP7527
TP7518
TP7528
TP7519
TP7529
TP7520
TP7530
TP7501
TP7503
TP7505
TP7507
TP7509
TP7511
TP7513
TP7521
TP7531
TP7502
TP7504
TP7506
TP7508
TP7510
TP7512
DTB_UV[7]
DTB_UV[6]
DTB_UV[5]
DTB_UV[4]
DTB_UV[3]
DTB_UV[2]
DTB_UV[1]
DTB_UV[0]
DTB_Y[7]
DTB_Y[6]
DTB_Y[5]
DTB_Y[4]
DTB_Y[3]
DTB_Y[2]
DTB_Y[1]
DTB_UV[7:0]
R7554
R7553
R7552
R7551
R7550
R7549
R7548
R7547
47
BCN1067-_-T
R7541
+3.3VD
F7502
F7503
VTF1084-_-T
0.1
C7510
C7511
IC7505
IC7504
TC74LCX541FT-TBB
VCC
OE2
OE1
GND
Y1 Y2 Y3 Y4 Y5 Y6 Y7 Y8
A1 A2 A3 A4 A5 A6 A7 A8
DVID_OE
DVID_PbPr[7]
DVID_PbPr[6]
DVID_PbPr[5]
DVID_PbPr[4]
DVID_PbPr[3]
DVID_PbPr[2]
DVID_PbPr[1]
DVID_PbPr[0]
DVID_PbPr[7:0]
DVID_Y[7:0]
DVID_EXTD[7:0]
DVID_Y[7:0],DVID_PbPr[7:0],
DVID_HS,DVID_VS,DVID_DE,DVID_CLK
VID_EXTD[0]
VID_EXTD[1]
VID_EXTD[2]
VID_EXTD[3]

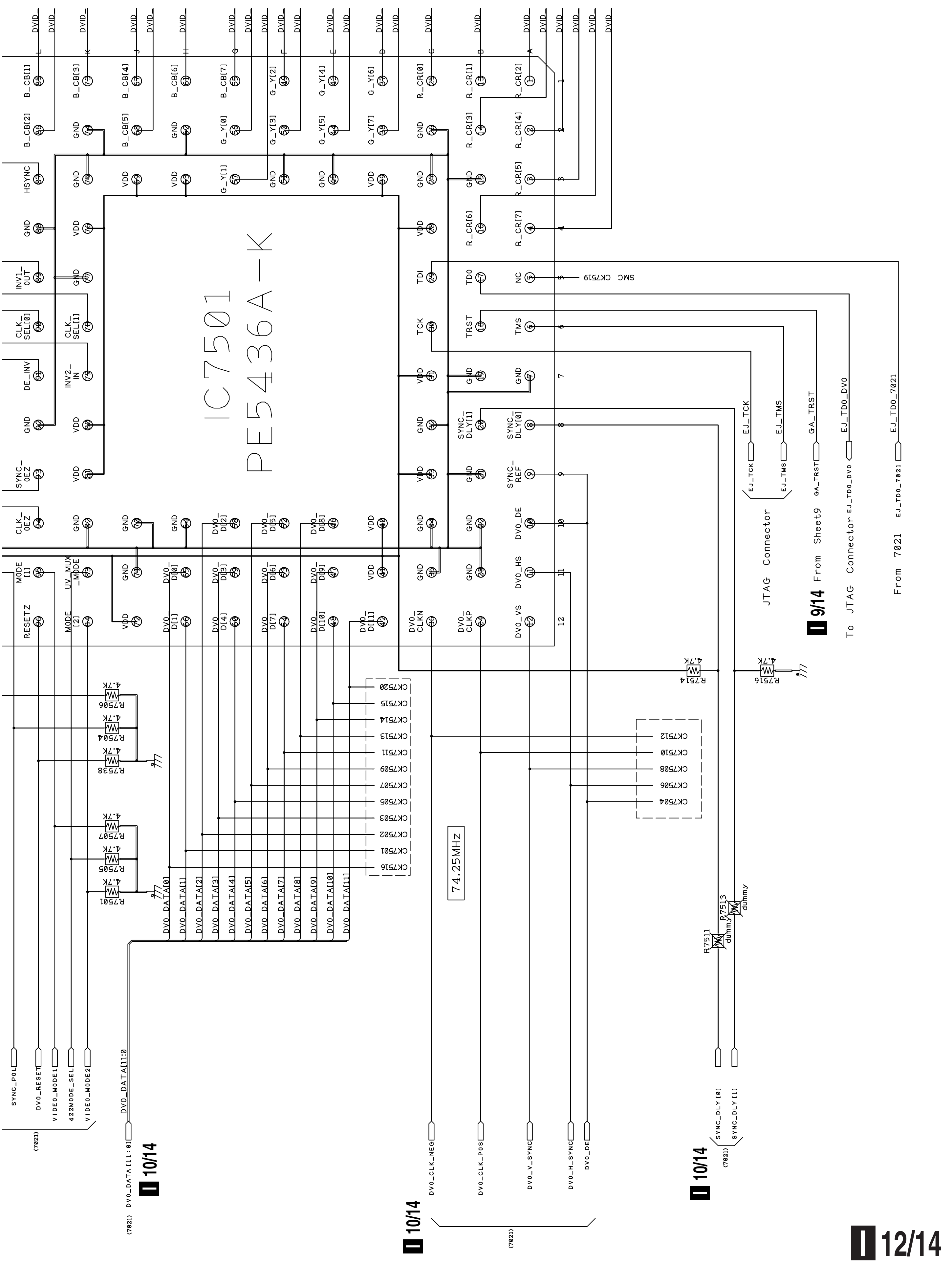

MR Main Board Connection
0.5mmPich FFC
Y[7:0]
EXTD[7:0]
SERIAL CONTROL
I2C NETWORK
AC DETECT
DTB_DETECT
RESET
TP7502
TP7504
TP7506
TP7508
TP7510
TP7512
TP7514
TP7522
TP7532
TP7515
TP7523
TP7533
TP7516
TP7524
TP7534
TP7525
R7546 100
R7545 100
R7522 100
R7519 100
R7521 100
RXDC
TXDC
SCL_MAIN
SDA_MAIN
AC_DETECT
DTB_RESET
5/14
1/14
7115
DTB_Y[7:0]
DTB_UV[7:0]
DTB_EXTD[7:0]
DTB_Y[7]
DTB_Y[6]
DTB_Y[5]
DTB_Y[4]
DTB_Y[3]
DTB_Y[2]
DTB_Y[1]
DTB_Y[0]
DTB_EXTD[7]
DTB_EXTD[6]
DTB_EXTD[5]
DTB_EXTD[4]
DTB_EXTD[3]
DTB_EXTD[2]
DTB_EXTD[1]
DTB_EXTD[0]
BCN1067-_-T
R7541
R7540
R7542
47
dummy
+3.3VD
F7504
F7505
VTF1084-_-T
C7508
0.1
C7509
dummy
IC7503
IC7502
TC74LCX541FT-TBB
VCC
OE2
OE1
GND
Y1
Y2
Y3
Y4
Y5
Y6
Y7
Y8
A1
A2
A3
A4
A5
A6
A7
A8
DVID_OE
DVID_Y[7]
DVID_Y[6]
DVID_Y[5]
DVID_Y[4]
DVID_Y[3]
DVID_Y[2]
DVID_Y[1]
DVID_Y[0]
DVID_EXTD[7]
DVID_EXTD[6]
DVID_EXTD[5]
DVID_EXTD[4]
DVID_EXTD[3]
DVID_EXTD[2]
DVID_EXTD[1]
DVID_EXTD[0]
VID_EXTD[1]
VID_EXTD[2]
VID_EXTD[3]
VID_EXTD[4]
VID_EXTD[5]
VID_EXTD[6]
VID_EXTD[7]
VID_Y[0]
VID_Y[1]
VID_Y[2]
VID_Y[3]
VID_Y[4]
VID_Y[5]
VID_Y[6]
VID_Y[7]
VID_PbPr[0]
VID_PbPr[1]
VID_PbPr[2]
VID_PbPr[3]
VID_PbPr[4]
VID_PbPr[5]
VID_PbPr[6]
VID_PbPr[7]


DVID_M
DVID_L
DVID_L
DVID_K
B_CB[0] 97
B_CB[1] 85
B_CB[3] 73
DE 98
B_CB[2] 86
GND 74
VSYNC 99
HSYNC 87
GND 75
CLK 100
GND 88
VDD 76
INV2_OUT 101
INV1_OUT 89
GND 77
INV1_IN 102
CLK_SEL[0] 90
CLK_SEL[1] 78
HS_INV 103
DE_INV 91
INV2_IN 79
VS_INV 104
GND 92
VDD 80
DATA_OEZ 105
SYNC_OEZ 93
VDD 81
DE_OEZ 106
CLK_OEZ 94
GND 82
SYNC_EDGE 107
MODE[1] 95
UV_MUX_MODE 83
MODE[0] 108
RESETZ 96
MODE[2] 84
(7021)
DSYNC_INV
DVID_CLK_SEL[0]
DVID_CLK_SEL[1]
R7523 4.7K
R7520 4.7K
R7517 4.7K
R7509 4.7K
R7515 4.7K
R7512 4.7K
CK7518
CK7517
dummy
R7529
R7558 0
R7557 0
R7508 4.7K
R7518
RAB4C0R0J-T
C7506 0.1
C7505 0.1
C7504 0.1
C7503 0.1
C7502 0.1
C7501 0.1
DVID_VDD
BCG1054-_-T
C7507 10u
F7506
VTF1084-_-T
F7501
VTF1084-_-T
+33VD
+3.3VD
200mA
VIDEO_MODE0
SYNC_POL
DVO_RESET
VIDEO_MODE1
422MODE_SEL
VIDEO_MODE2
(7021)
10/14

Large size SCH diagram

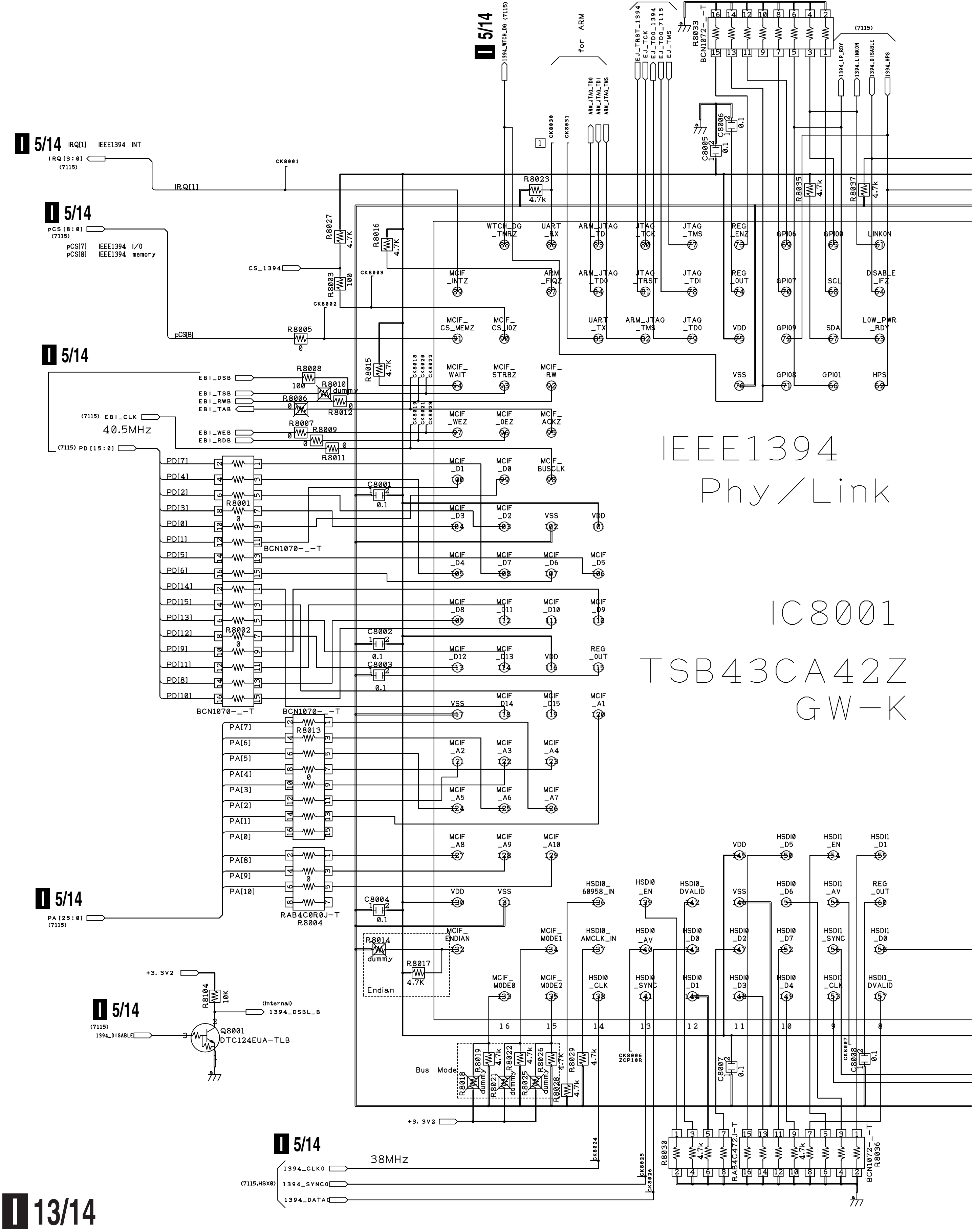


12/14


IC7501
PE5436A-K
B_CB[0]
B_CB[1]
B_CB[2]
B_CB[3]
B_CB[4]
B_CB[5]
B_CB[6]
B_CB[7]
G_Y[0]
G_Y[1]
G_Y[2]
G_Y[3]
G_Y[4]
G_Y[5]
G_Y[6]
G_Y[7]
R_CR[0]
R_CR[1]
R_CR[2]
R_CR[3]
R_CR[4]
R_CR[5]
R_CR[6]
R_CR[7]
HSYNC
INV1_OUT
CLK_SEL[0]
CLK_SEL[1]
DE_INV
INV2_IN
SYNC_OEZ
CLK_OEZ
MODE[1]
MODE[2]
UV_MUX_MODE
RESETZ
TDI
TDO
TCK
TRST
TMS
NC
SYNC_DLY[0]
SYNC_DLY[1]
SYNC_REF
DVO_DE
DVO_HS
DVO_VS
DVO_CLKN
DVO_CLKP
DVO_D[0]
DVO_D[1]
DVO_D[2]
DVO_D[3]
DVO_D[4]
DVO_D[5]
DVO_D[6]
DVO_D[7]
DVO_D[8]
DVO_D[9]
DVO_D[10]
DVO_D[11]
VDD
GND
DVID_
SMC CK7519
EJ_TCK
EJ_TMS
GA_TRST
EJ_TDO_DVO
EJ_TDO_7021
JTAG Connector
9/14 From Sheet9
To JTAG Connector
From 7021
R7514 4.7K
R7516 4.7K
R7506 4.7K
R7504 4.7K
R7538 4.7K
R7507 4.7K
R7505 4.7K
R7501 4.7K
R7511 dummy
R7513 dummy
CK7520
CK7515
CK7514
CK7513
CK7511
CK7509
CK7507
CK7505
CK7503
CK7502
CK7501
CK7516
CK7512
CK7510
CK7508
CK7506
CK7504
74.25MHz
DVO_DATA[0]
DVO_DATA[1]
DVO_DATA[2]
DVO_DATA[3]
DVO_DATA[4]
DVO_DATA[5]
DVO_DATA[6]
DVO_DATA[7]
DVO_DATA[8]
DVO_DATA[9]
DVO_DATA[10]
DVO_DATA[11]
DVO_DATA[11:0]
SYNC_POL
DVO_RESET
VIDEO_MODE1
422MODE_SEL
VIDEO_MODE2
(7021)
10/14
DVO_CLK_NEG
DVO_CLK_POS
DVO_V_SYNC
DVO_H_SYNC
DVO_DE
SYNC_DLY[0]
SYNC_DLY[1]
5
6
7
8
A
B
C
D
E
F

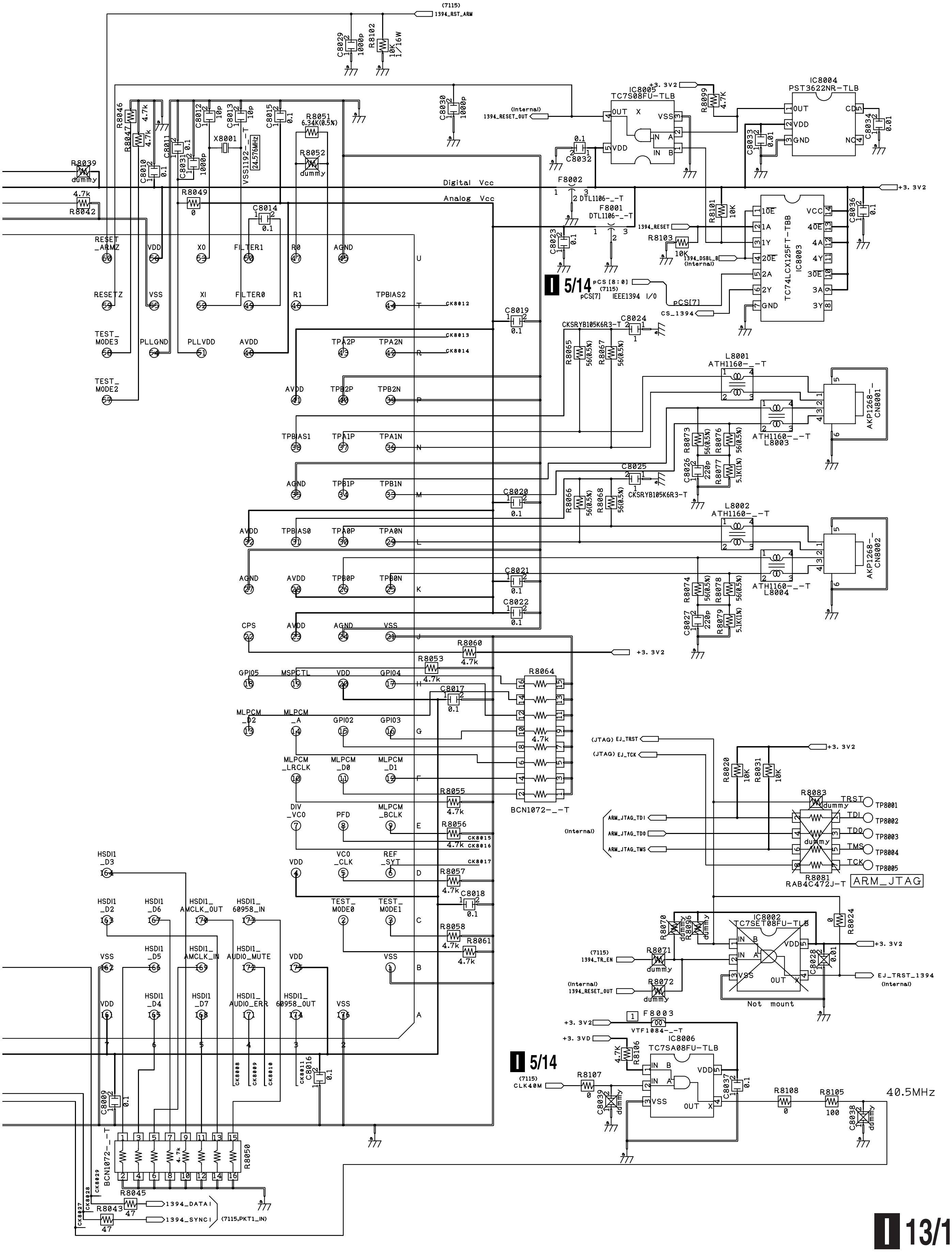
3.38 TUNER BOARD ASSY (13/14)

I 13/14 DTV TUNER BOARD ASSY (AWE1300)



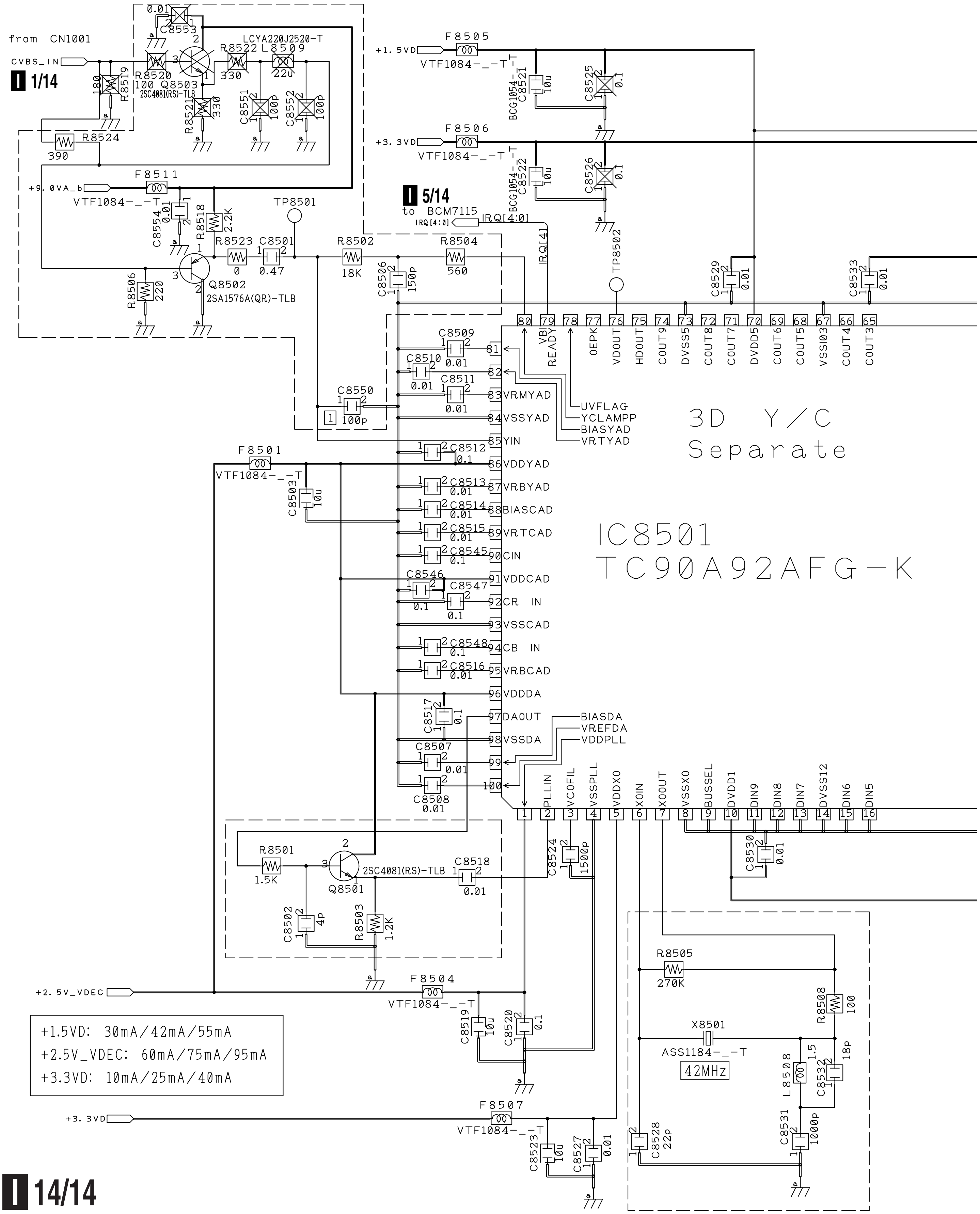
I 5/14
1394_WTCH_DG (7115)
for ARM
JTAG
EJ_TRST_1394
EJ_TCK
EJ_TDO_1394
EJ_TDO_7115
EJ_TMS
R8033
BCN1072-_-T
(7115)
1394_LP_RDY
1394_LINKON
1394_DISABLE
1394_HPS
ARM_JTAG_TDO
ARM_JTAG_TDI
ARM_JTAG_TMS
CK8030
CK8031
C8005 0.1
C8006 0.1
I 5/14 IRQ[1] IEEE1394 INT
IRQ[3:0] (7115)
CK8001
IRQ[1]
R8023 4.7k
R8035 4.7k
R8037 4.7k
I 5/14
pCS[8:0] (7115)
pCS[7] IEEE1394 I/O
pCS[8] IEEE1394 memory
R8027 4.7K
R8016 4.7K
CS_1394
R8003 100
CK8003
CK8002
pCS[8]
R8005 0
I 5/14
EBI_DSB
EBI_TSB
EBI_RWB
EBI_TAB
(7115) EBI_CLK
40.5MHz
EBI_WEB
EBI_RDB
(7115) PD[15:0]
R8008 100
R8010 dummy
R8006 0
R8012 0
R8007 0
R8009 0
R8011 0
R8015 4.7K
CK8018 CK8020 CK8022
CK8019 CK8021 CK8023
PD[7] PD[4] PD[2] PD[3] PD[0] PD[1] PD[5] PD[6]
R8001 0
BCN1070-_-T
PD[14] PD[15] PD[13] PD[12] PD[9] PD[11] PD[8] PD[10]
R8002 0
BCN1070-_-T
BCN1070-_-T
PA[7] PA[6] PA[5] PA[4] PA[3] PA[2] PA[1] PA[0]
R8013 0
PA[8] PA[9] PA[10]
RAB4C0R0J-T
R8004
I 5/14
PA[25:0] (7115)
C8001 0.1
C8002 0.1
C8003 0.1
C8004 0.1
WTCH_DG_TMRZ 88
UART_RX 86
ARM_JTAG_TDI 83
JTAG_TCK 80
JTAG_TMS 77
REG_ENZ 73
GPIO6 69
GPIO0 65
LINKON 61
MCIF_INTZ 89
ARM_FIQZ 87
ARM_JTAG_TDO 84
JTAG_TRST 81
JTAG_TDI 78
REG_OUT 74
GPIO7 70
SCL 68
DISABLE_IFZ 64
MCIF_CS_MEMZ 91
MCIF_CS_IOZ 90
UART_TX 85
ARM_JTAG_TMS 82
JTAG_TDO 79
VDD 75
GPIO9 72
SDA 67
LOW_PWR_RDY 63
MCIF_WAIT 94
MCIF_STRBZ 93
MCIF_RW 92
VSS 76
GPIO8 71
GPIO1 66
HPS 62
MCIF_WEZ 97
MCIF_OEZ 96
MCIF_ACKZ 95
MCIF_D1 100
MCIF_D0 99
MCIF_BUSCLK 98
MCIF_D3 104
MCIF_D2 103
VSS 102
VDD 101
MCIF_D4 105
MCIF_D7 108
MCIF_D6 107
MCIF_D5 106
MCIF_D8 109
MCIF_D11 112
MCIF_D10 111
MCIF_D9 110
MCIF_D12 113
MCIF_D13 114
VDD 116
REG_OUT 115
VSS 117
MCIF_D14 118
MCIF_D15 119
MCIF_A1 120
MCIF_A2 121
MCIF_A3 122
MCIF_A4 123
MCIF_A5 124
MCIF_A6 125
MCIF_A7 126
MCIF_A8 127
MCIF_A9 128
MCIF_A10 129
VDD 130
VSS 131
MCIF_ENDIAN 132
MCIF_MODE0 133
MCIF_MODE1 134
MCIF_MODE2 135
HSDI0_60958_IN 136
HSDI0_AMCLK_IN 137
HSDI0_CLK 138
HSDI0_EN 139
HSDI0_AV 140
HSDI0_SYNC 141
HSDI0_DVALID 142
HSDI0_D0 143
HSDI0_D1 144
VDD 145
VSS 146
HSDI0_D2 147
HSDI0_D3 148
HSDI0_D4 149
HSDI0_D5 150
HSDI0_D6 151
HSDI0_D7 152
HSDI1_CLK 153
HSDI1_EN 154
HSDI1_AV 155
HSDI1_SYNC 156
HSDI1_DVALID 157
HSDI1_D0 158
HSDI1_D1 159
REG_OUT 160
IEEE1394
Phy/Link
IC8001
TSB43CA42Z
GW-K
R8014 dummy
R8017 4.7K
Endian
+3.3V2
R8104 10K
(Internal) 1394_DSBL_B
I 5/14
(7115) 1394_DISABLE
Q8001
DTC124EUA-TLB
16 15 14 13 12 11 10 9 8
Bus Mode
R8018 dummy
R8019 4.7k
R8021 dummy
R8022 4.7k
R8025 dummy
R8026 4.7k
R8028 4.7k
R8029 4.7k
CK8006 ZCP10R
C8007 0.1
CK8007
C8008 0.1
+3.3V2
I 5/14
1394_CLK0
38MHz
(7115,HSX0) 1394_SYNC0
1394_DATA0
CK8024
CK8025
CK8026
R8030
RAB4C472J-T
4.7k
BCN1072-_-T
R8036

I 13/14

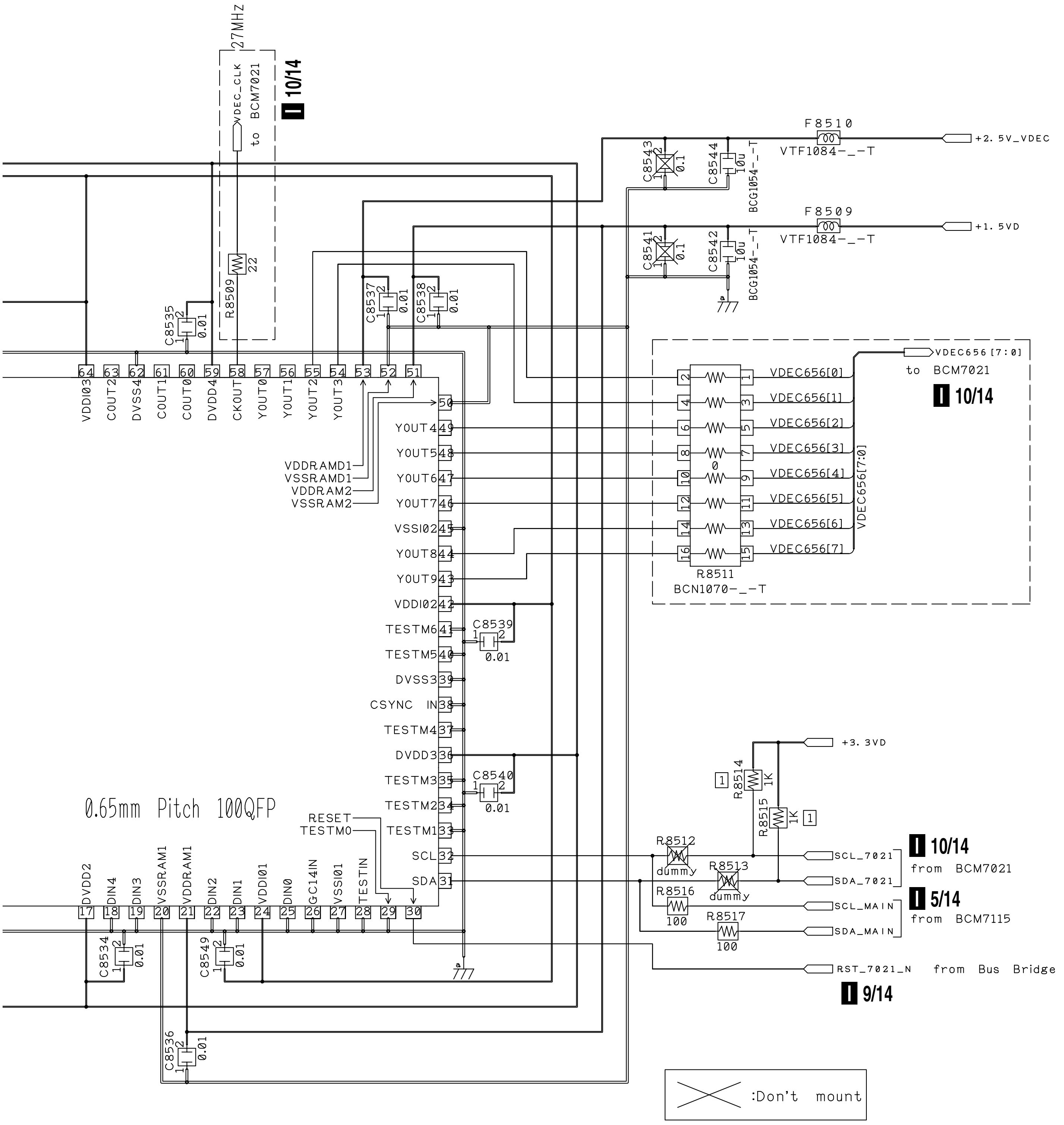

(7115)
1394_RST_ARM
C8029 1000p
R8102 10K 1/16W
C8030 1000p
(Internal)
1394_RESET_OUT
IC8005
TC7S08FU-TLB
OUT X VSS IN A IN B VDD
+3.3V2
R8099 4.7K
IC8004
PST3622NR-TLB
OUT VDD GND CD NC
C8033 0.01
C8034 0.01
C8032 0.1
F8002
DTL1106-_-T
F8001
DTL1106-_-T
Digital Vcc
Analog Vcc
+3.3V2
R8101 10K
1394_RESET
R8103 10K
1394_DSBL_B (Internal)
IC8003
TC74LCX125FT-TBB
1OE 1A 1Y 2OE 2A 2Y GND VCC 4OE 4A 4Y 3OE 3A 3Y
C8036 0.1
C8023 0.1
5/14
pCS[8:0]
(7115)
pCS[7] IEEE1394 I/O
pCS[7]
CS_1394
R8046 4.7k
R8047 4.7k
C8010 0.1
C8011
C8031 0.1
C8012 10p
C8013 10p
X8001
VSS1192-_-T 24.576MHz
C8015 0.1
R8051 6.34K(0.5%)
R8052 dummy
R8039 dummy
4.7k
R8042
R8049 0
C8014 0.1
RESET_ARMZ 60
VDD 56
X0 53
FILTER1 50
R0 47
AGND 45
RESETZ 59
VSS 55
XI 52
FILTER0 49
R1 46
TPBIAS2 44
TEST_MODE3 58
PLLGND 54
PLLVDD 51
AVDD 48
TPA2P 43
TPA2N 42
TEST_MODE2 57
AVDD 41
TPB2P 40
TPB2N 39
TPBIAS1 38
TPA1P 37
TPA1N 36
AGND 35
TPB1P 34
TPB1N 33
AVDD 32
TPBIAS0 31
TPA0P 30
TPA0N 29
AGND 27
AVDD 28
TPB0P 26
TPB0N 25
CPS 22
AVDD 23
AGND 24
VSS 21
GPIO5 18
MSPCTL 19
VDD 20
GPIO4 17
MLPCM_D2 13
MLPCM_A 14
GPIO2 15
GPIO3 16
MLPCM_LRCLK 10
MLPCM_D0 11
MLPCM_D1 12
DIV_VCO 7
PFD 8
MLPCM_BCLK 9
VDD 4
VCO_CLK 5
REF_SYT 6
TEST_MODE0 2
TEST_MODE1 3
VSS 1
U T R P N M L K J H G F E D C B A
CK8012 CK8013 CK8014 CK8015 CK8016 CK8017
C8019 0.1
C8024
CKSRYB105K6R3-T
R8065 56(0.5%)
R8067 56(0.5%)
L8001 ATH1160-_-T
AKP1268-_ CN8001
ATH1160-_-T L8003
R8073 56(0.5%)
R8076 56(0.5%)
C8026 220p
R8077 5.1K(1%)
C8025
CKSRYB105K6R3-T
C8020 0.1
R8066 56(0.5%)
R8068 56(0.5%)
L8002 ATH1160-_-T
AKP1268-_ CN8002
ATH1160-_-T L8004
R8074 56(0.5%)
R8078 56(0.5%)
C8027 220p
R8079 5.1K(1%)
C8021 0.1
C8022 0.1
R8060 4.7k
+3.3V2
R8053 4.7k
C8017 0.1
R8064 4.7k
BCN1072-_-T
R8055 4.7k
R8056 4.7k
R8057 4.7k
C8018 0.1
R8058 4.7k
R8061 4.7k
(JTAG) EJ_TRST
(JTAG) EJ_TCK
+3.3V2
R8020 10K
R8031 10K
R8083 dummy
TRST TDI TDO TMS TCK
TP8001 TP8002 TP8003 TP8004 TP8005
(Internal)
ARM_JTAG_TDI
ARM_JTAG_TDO
ARM_JTAG_TMS
dummy
R8081
RAB4C472J-T
ARM_JTAG
IC8002
TC7SET08FU-TLB
R8070 dummy
R8069 dummy
R8024 0
+3.3V2
(7115) 1394_TR_EN
R8071 dummy
(Internal) 1394_RESET_OUT
R8072 dummy
C8028 0.01
EJ_TRST_1394 (Internal)
Not mount
+3.3V2
F8003
VTF1084-_-T
+3.3VD
IC8006
TC7SA08FU-TLB
R8106 4.7K
5/14
(7115) CLK40M
R8107 0
C8039 dummy
C8037 0.1
R8108 0
R8105 100
40.5MHz
C8038 dummy
HSDI1_D3 164
HSDI1_D2 163
HSDI1_D6 167
HSDI1_AMCLK_OUT 170
HSDI1_60958_IN 173
VSS 162
HSDI1_D5 166
HSDI1_AMCLK_IN 169
HSDI1_AUDIO_MUTE 172
VDD 175
VDD 161
HSDI1_D4 165
HSDI1_D7 168
HSDI1_AUDIO_ERR 171
HSDI1_60958_OUT 174
VSS 176
CK8008 CK8009 CK8010 CK8011
C8016 0.1
C8009 0.1
R8050 4.7k
BCN1072-_-T
CK8029 CK8028 CK8027
R8045 47
1394_DATAI
R8043 47
1394_SYNCI
(7115,PKT1_IN)

3.39 TUNER BOARD ASSY (14/14)

I 14/14 DTV TUNER BOARD ASSY (AWE1300)


from CN1001
CVBS_IN
I 1/14
0.01
C8553
LCYA220J2520-T
R8522 L8509
330 22u
R8520 100 Q8503
2SC4081(RS)-TLB
180 R8519
R8521 330
C8551 100p
C8552 100p
R8524 390
F8511
+9.0VA_b
VTF1084-_-T
C8554 0.01
R8518 2.2K
TP8501
R8523 0
C8501 0.47
Q8502
2SA1576A(QR)-TLB
R8506 220
R8502 18K
R8504 560
C8506 150p
I 5/14
to BCM7115
IRQ[4:0]
IRQ[4]
F8505
+1.5VD
VTF1084-_-T
BCG1054-_-T
C8521 10u
C8525 0.1
F8506
+3.3VD
C8522 10u
C8526 0.1
TP8502
C8529 0.01
C8533 0.01
80 79 78 77 76 75 74 73 72 71 70 69 68 67 66 65
VBI READY
OEPK
VDOUT
HDOUT
COUT9
DVSS5
COUT8
COUT7
DVDD5
COUT6
COUT5
VSSIO3
COUT4
COUT3
C8509 0.01
C8510 0.01
C8511 0.01
C8550 100p
81 82
83 VRMYAD
84 VSSYAD
85 YIN
86 VDDYAD
87 VRBYAD
88 BIASCAD
89 VRTCAD
90 CIN
91 VDDCAD
92 CR IN
93 VSSCAD
94 CB IN
95 VRBCAD
96 VDDDA
97 DAOUT
98 VSSDA
99
100
UVFLAG
YCLAMPP
BIASYAD
VRTYAD
3D Y/C Separate
IC8501
TC90A92AFG-K
F8501
VTF1084-_-T
C8503 10u
C8512 0.1
C8513 0.01
C8514 0.01
C8515 0.01
C8545 0.1
C8546 0.1
C8547 0.1
C8548 0.1
C8516 0.01
C8517 0.1
C8507 0.01
C8508 0.01
BIASDA
VREFDA
VDDPLL
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
PLLIN
VCOFIL
VSSPLL
VDDXO
XOIN
XOOUT
VSSXO
BUSSEL
DVDD1
DIN9
DIN8
DIN7
DVSS12
DIN6
DIN5
C8524 1500p
C8530 0.01
R8501 1.5K
Q8501
2SC4081(RS)-TLB
C8518 0.01
C8502 4p
R8503 1.2K
+2.5V_VDEC
F8504
VTF1084-_-T
C8519 10u
C8520 0.1
R8505 270K
R8508 100
X8501
ASS1184-_-T
42MHz
L8508 1.5
C8532 18p
C8528 22p
C8531 1000p
F8507
+3.3VD
VTF1084-_-T
C8523 10u
C8527 0.01
+1.5VD: 30mA/42mA/55mA
+2.5V_VDEC: 60mA/75mA/95mA
+3.3VD: 10mA/25mA/40mA

I 14/14

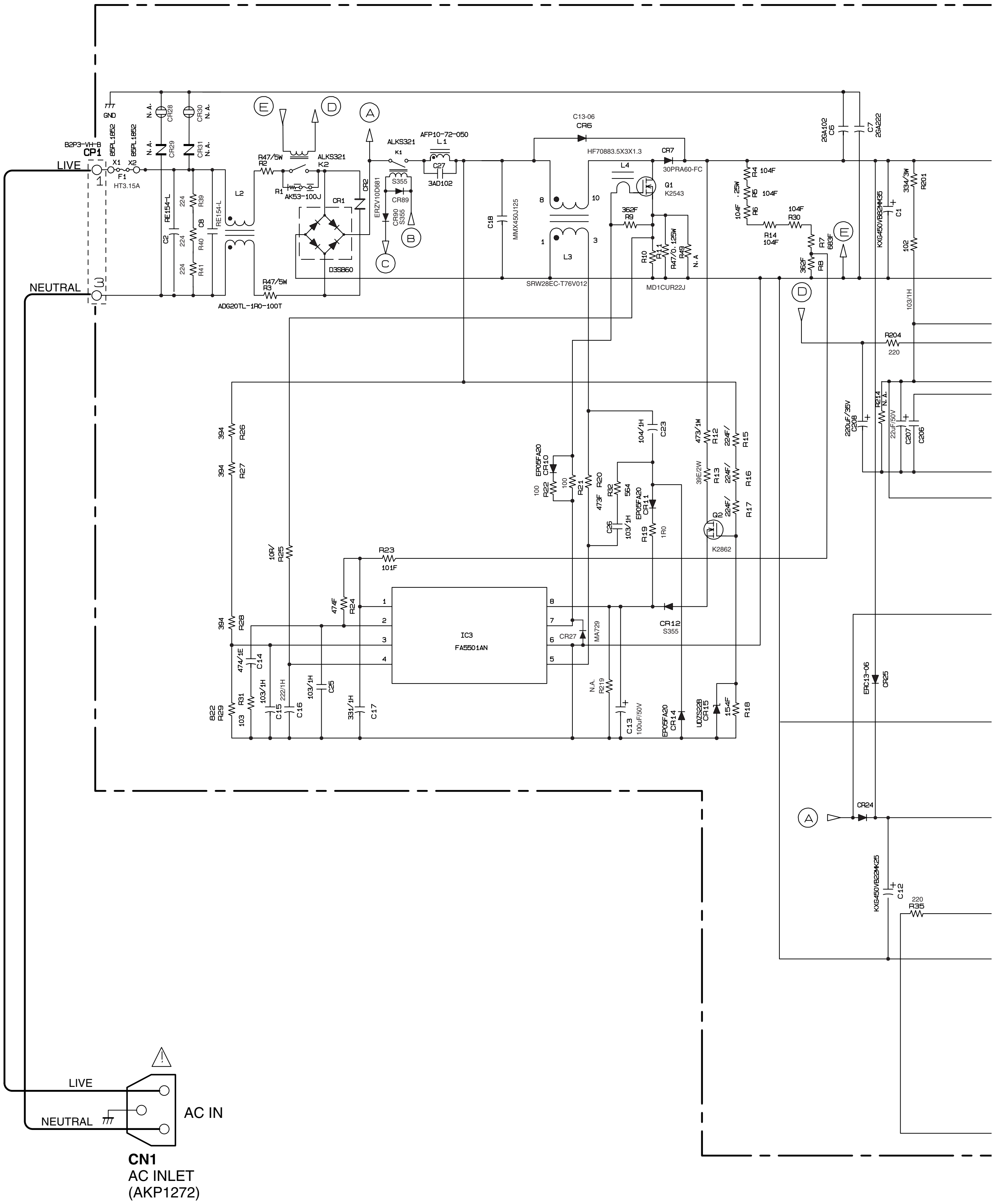

27MHz
VDEC_CLK to BCM7021
10/14
R8509 22
C8535 0.01
C8537 0.01
C8538 0.01
F8510
VTF1084-_-T
+2.5V_VDEC
C8543 0.1
C8544 10u
BCG1054-_-T
F8509
VTF1084-_-T
+1.5VD
C8541 0.1
C8542 10u
BCG1054-_-T
VDEC656[7:0]
to BCM7021
10/14
VDEC656[0]
VDEC656[1]
VDEC656[2]
VDEC656[3]
VDEC656[4]
VDEC656[5]
VDEC656[6]
VDEC656[7]
VDEC656[7:0]
0
R8511
BCN1070-_-T
64 VDDIO3
63 COUT2
62 DVSS4
61 COUT1
60 COUT0
59 DVDD4
58 CKOUT
57 YOUT0
56 YOUT1
55 YOUT2
54 YOUT3
53
52
51
50
VDDRAMD1
VSSRAMD1
VDDRAM2
VSSRAM2
YOUT4 49
YOUT5 48
YOUT6 47
YOUT7 46
VSSIO2 45
YOUT8 44
YOUT9 43
VDDIO2 42
TESTM6 41
TESTM5 40
DVSS3 39
CSYNC IN 38
TESTM4 37
DVDD3 36
TESTM3 35
TESTM2 34
TESTM1 33
SCL 32
SDA 31
C8539 0.01
C8540 0.01
0.65mm Pitch 100QFP
RESET
TESTM0
17 DVDD2
18 DIN4
19 DIN3
20 VSSRAM1
21 VDDRAM1
22 DIN2
23 DIN1
24 VDDIO1
25 DIN0
26 GC14IN
27 VSSIO1
28 TESTIN
29
30
C8534 0.01
C8549 0.01
C8536 0.01
+3.3VD
R8514 1K
R8515 1K
1
R8512 dummy
R8513 dummy
R8516 100
R8517 100
SCL_7021
SDA_7021
10/14
from BCM7021
SCL_MAIN
SDA_MAIN
5/14
from BCM7115
RST_7021_N
from Bus Bridge
9/14
:Don't mount

I2C
BUSSEL(9pin)--->GND: 0xB0(Default)

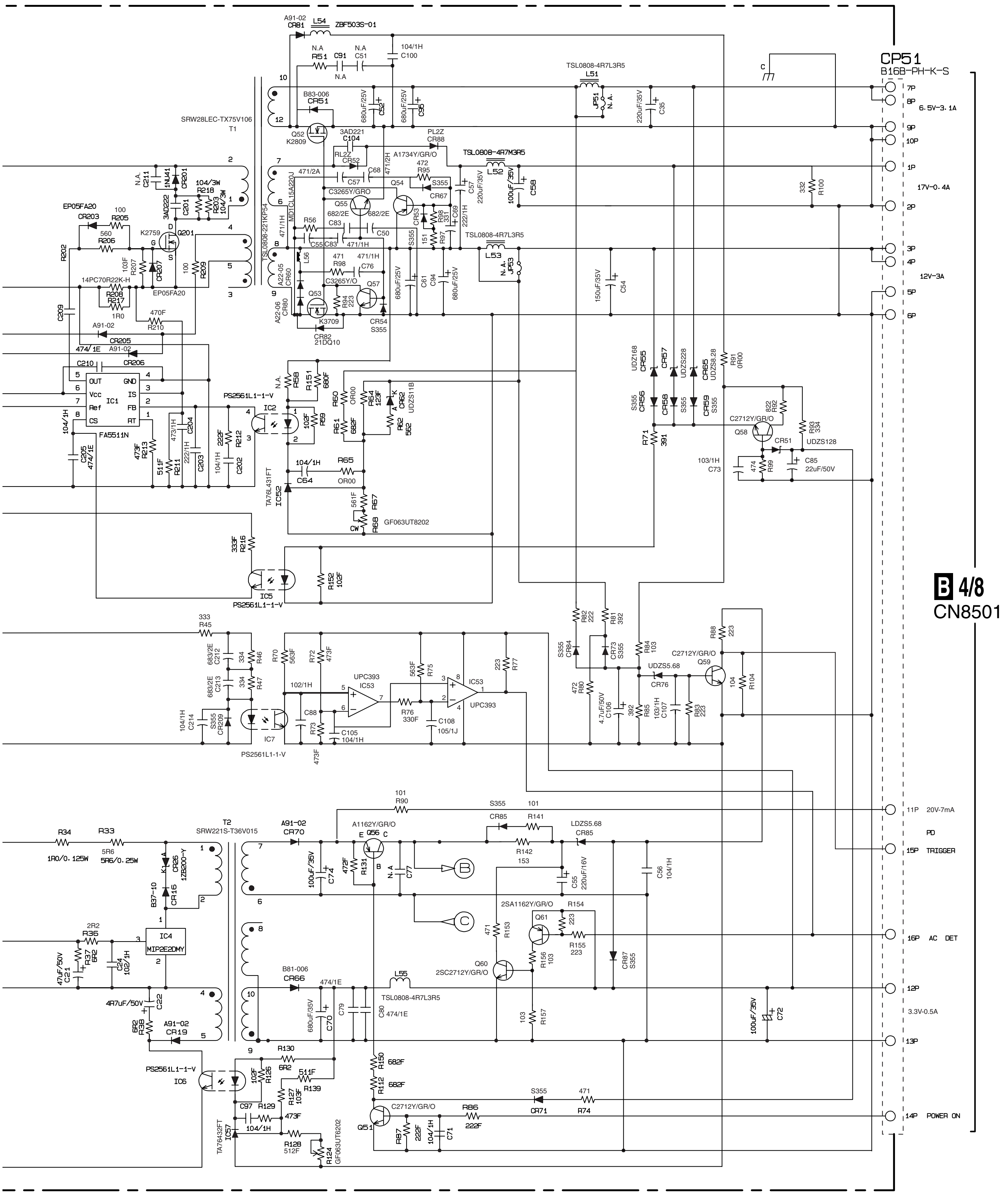
14/14

3.40 POWER SUPPLY UNIT

K POWER SUPPLY UNIT (AXY1091)


A
B
C
D
E
F
GND
B2P3-VH-B
CP1
LIVE
NEUTRAL
X1
X2
F1
HT3.15A
85PL1852
N. A.
CR28
CR29
CR30
CR31
RE154-L
C2
224
R39
C8
R40
R41
L2
R47/5W
R2
R1
AK53-100J
ALKS321
K2
R3
ADG20TL-1R0-100T
CR1
D3SB60
CR2
ERZV10D681
CR90
S355
CR89
ALKS321
K1
AFP10-72-050
L 1
C27
3AD102
C18
MMX450J125
C13-06
CR6
HF70883.5X3X1.3
CR7
30PRA60-FC
L4
Q1
K2543
8
10
1
3
L3
SRW28EC-T76V012
362F
R9
R10
R11
R47/0.125W
R49
N. A
MD1CUR22J
2GA102
C6
C7
2GA222
R4
104F
R5
104F
R6
.25W
104F
R14
R30
R7
683F
R8
362F
KXG450VB82MM35
C1
334/3W
R201
102
103/1H
R204
220
220uF/35V
C208
R214
N. A.
22uF/50V
C207
C206
394
R26
R27
10R
R25
R23
101F
474F
R24
R28
474/1E
C14
822
R29
R31
103
103/1H
C15
222/1H
C16
103/1H
C25
331/1H
C17
1
2
3
4
IC3
FA5501AN
8
7
6
5
CR27
MA729
EP05FA20
CR10
100
R22
R21
R20
473F
R32
564
EP05FA20
CR11
C26
103/1H
R19
1R0
104/1H
C23
473/1W
R12
39E/2W
R13
224F/
R15
R16
R17
Q2
K2862
CR12
S355
N.A.
R219
C13
100uF/50V
EP05FA20
CR14
UDZS22B
CR15
154F
R18
EPC13-06
CR25
CR24
KXG450VB22MK25
C12
220
R35
LIVE
NEUTRAL
AC IN
CN1
AC INLET
(AKP1272)

K

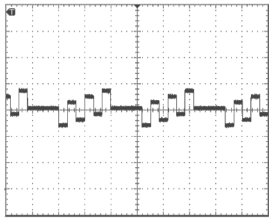

CP51
B16B-PH-K-S
7P
8P
6.5V-3.1A
9P
10P
1P
17V-0.4A
2P
3P
4P
12V-3A
5P
6P
B 4/8
CN8501
11P 20V-7mA
PD
15P TRIGGER
16P AC DET
12P
3.3V-0.5A
13P
14P POWER ON
A91-02
CR81
L54
ZBF503S-01
104/1H
C100
N.A
R51
C91
C51
SRW28LEC-TX75V106
T1
B83-006
CR51
680uF/25V
C52
C95
TSL0808-4R7L3R5
L51
JP51
N.A.
220uF/35V
C35
Q52
K2809
3AD221
C104
PL2Z
CR88
RL2Z
CR52
A1734Y/GR/O
TSL0808-4R7M3R5
L52
471/2A
C57
C68
471/2H
472
R95
S355
CR67
220uF/35V
100uF/35V
C58
C3265Y/GRO
Q54
Q55
682/2E
CR53
C69
222/1H
C83
C50
R56
R98
R97
151
331
TSL0808-4R7L3R5
L53
JP53
MDTCL15A220J
TSL0808-221KP54
471/1H
C55
A22-05
CR60
L56
471
471/1H
C76
C3265Y/O
Q53
Q57
R94
223
680uF/25V
C61
C94
CR54
S355
K3709
CR82
21DQ10
A22-06
CR80
150uF/35V
C54
332
R100
N.A.
C211
1NJ41
CR201
104/3W
R218
R203
3AD222
C201
EP05FA20
CR203
100
R205
560
R206
K2759
Q201
D
G
S
R202
103F
R207
CR207
R209
14PC70R22K-H
R208
R217
1R0
EP05FA20
C209
470F
R210
A91-02
CR205
474/1E
CR206
C210
OUT
GND
Vcc
IS
Ref
FB
CS
RT
IC1
FA5511N
104/1H
C205
474/1E
R213
473F
473/1H
C204
511F
R211
C203
222/1H
222F
R212
C202
104/1H
PS2561L1-1-V
IC2
N.A.
R58
R151
680F
R59
102F
R60
0R00
R64
123F
CR62
UDZS11B
R61
682F
R62
562
104/1H
C64
R65
0R00
TA76L431FT
IC52
561F
R67
R68
CW
GF063UT8202
333F
R216
R152
102F
IC5
PS2561L1-1-V
UDZ168
CR55
CR57
UDZS228
CR65
UDZS8.28
R91
0R00
S355
CR56
CR58
CR59
R822
R82
C2712Y/GR/O
Q58
CR51
R93
334
UDZS128
103/1H
C73
474
R99
C85
22uF/50V
R71
391
333
R45
683/2E
C212
334
R46
682/2E
C213
R47
104/1H
C214
CR209
IC7
PS2561L1-1-V
R70
563F
R72
473F
UPC393
IC53
102/1H
C88
R73
C105
104/1H
563F
R75
R76
330F
C108
105/1J
223
R77
R82
222
R81
392
CR84
CR73
R84
103
R88
223
C2712Y/GR/O
Q59
UDZS5.68
CR76
R80
472
4.7uF/50V
C106
392
R85
103/1H
C107
R83
223
104
R104
101
R90
S355
101
CR85
R141
LDZS5.68
CR85
R142
153
A1162Y/GR/O
Q56
E
C
B
R34
R33
5R6
1R0/0.125W
5R6/0.25W
T2
SRW221S-T36V015
A91-02
CR70
100uF/35V
C74
472F
R131
N.A
C77
C55
220uF/16V
C56
104/1H
CR26
1ZB200-Y
B37-10
CR16
IC4
MIP2E2DMY
2R2
R36
R37
6R2
C24
102/1H
47uF/50V
C21
4R7uF/50V
C22
R38
A91-02
CR19
2SA1162Y/GR/O
R154
Q61
471
R153
R155
223
Q60
2SC2712Y/GR/O
R156
103
CR87
S355
B81-006
CR66
474/1E
L55
TSL0808-4R7L3R5
680uF/35V
C70
C79
C80
474/1E
103
R157
100uF/35V
C72
R130
6R2
PS2561L1-1-V
IC6
102F
R126
511F
R139
R127
103F
C97
R129
104/1H
473F
TA76432FT
IC57
R128
512F
R124
GF063UT6202
R150
682F
R112
682F
S355
CR71
471
R74
C2712Y/GR/O
Q51
R86
222F
R87
222F
104/1H
C71

3.41 WAVEFORMS

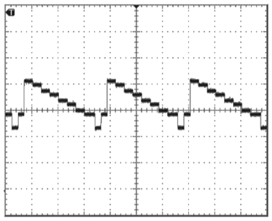
Note : The encircled numbers denote measuring point in the schematic diagram.

A MR MAIN BOARDASSY

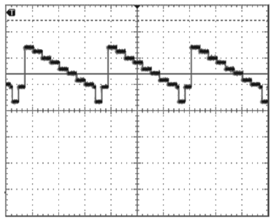
① **TP6402 (Component B)**
V: 500mV/div. H: 20µsec/div.



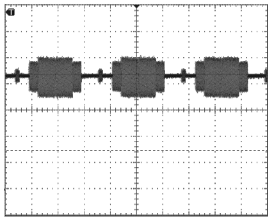
⑦ **TP6605 (Component G)**
V: 500mV/div. H: 20µsec/div.



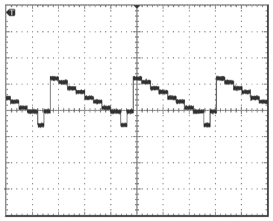
⑬ **TP7456 (SUB_Y)**
V: 1V/div. H: 20µsec/div.



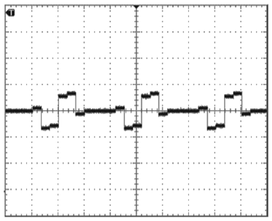
⑭ **TP7457 (SUB_C)**
V: 1V/div. H: 20µsec/div.



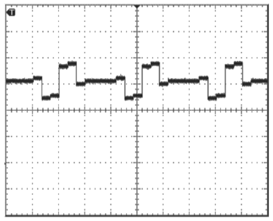
② **TP6403 (Component G)**
V: 500mV/div. H: 20µsec/div.



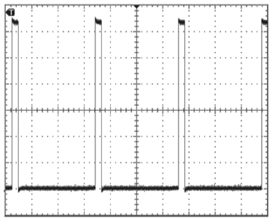
⑧ **TP6606 (Component R)**
V: 500mV/div. H: 20µsec/div.



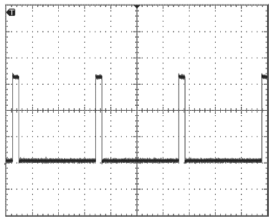
③ **TP6404 (Component R)**
V: 500mV/div. H: 20µsec/div.



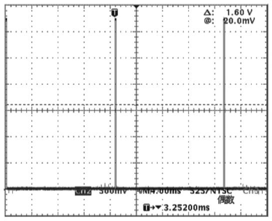
⑨ **TP6607 (HD2_SUB)**
V: 500mV/div. H: 20µsec/div.



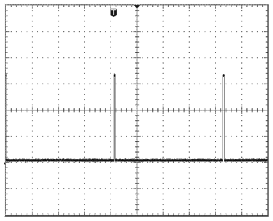
④ **TP6405 (HD2_MAIN)**
V: 1V/div. H: 20µsec/div.



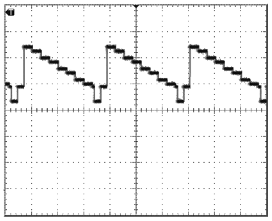
⑩ **TP6608 (VD2_SUB)**
V: 500mV/div. H: 4msec/div.



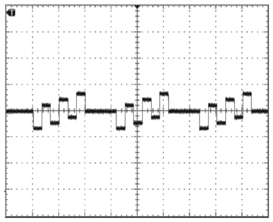
⑤ **TP6406 (VD2_MAIN)**
V: 1V/div. H: 400msec/div.



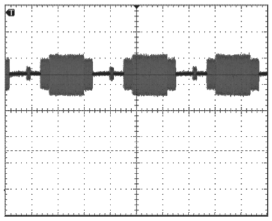
⑪ **TP7451 (MAIN_Y)**
V: 1V/div. H: 20µsec/div.



⑥ **TP6604 (Component B)**
V: 500mV/div. H: 20µsec/div.

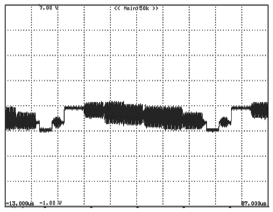


⑫ **TP7452 (MAIN_C)**
V: 1V/div. H: 20µsec/div.

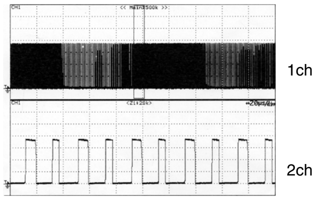


B AV BOARD ASSY

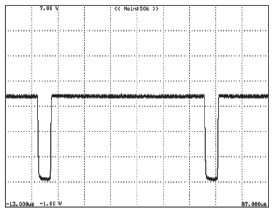
① **TP7514 (AIR_V)**
V: 1V/div. H: 10µsec/div.



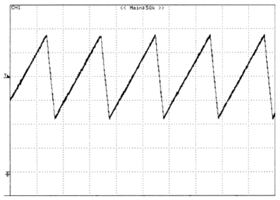
⑤ **IC8503-pin 1 (SW COLLECTOR) (36V VDD)** V: 10V/div.
H: 500µsec/div.(1ch), 20µsec/div.(2ch)



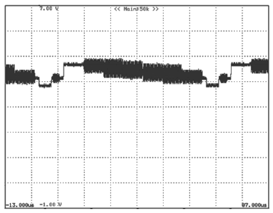
② **R7541 - R7542 (AIR_HS)**
V: 1V/div. H: 10µsec/div.



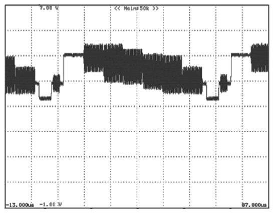
⑥ **IC8503-pin 3 (TIMING CAPACITOR) (36V VDD Oscillation)**
V: 0.2V/div. H: 10µsec/div.



③ **IC8002-pin 63 (AIR_V)**
V: 1V/div. H: 10µsec/div.



④ **IC8002-pin 44 (MAIN_Y)**
V: 1V/div. H: 10µsec/div.



3.42 VOLTAGES

B AV BOARD ASSY — **A** MR MAIN BOARD ASSY

CN8652 (AKM1201)		Voltage (V)	CN7455 (AKM1201)	
No.	Name		Name	No.
1	GND	0	GND	50
2	GND	0	GND	49
3	AUDIO_R	0	AUDIO_R	48
4	GND	0	GND	47
5	AUDIO_L	0	AUDIO_L	46
6	GND	0	GND	45
7	HDMI_RCH	0	HDMI_RCH	44
8	GND	0	GND	43
9	HDMI_LCH	0	HDMI_LCH	42
10	GND	0	GND	41
11	GND	0	GND	40
12	GND	0	GND	39
13	GND	0	GND	38
14	GND	0	GND	37
15	GND	0	GND	36
16	GND	0	GND	35
17	GND	0	GND	34
18	GND	0	GND	33
19	GND	0	GND	32
20	GND	0	GND	31
21	GND	0	GND	30
22	GND	0	GND	29
23	GND	0	GND	28
24	GND	0	GND	27
25	GND	0	GND	26
26	AIR_AFT2	1.7	AIR_AFT2	25
27	AIR_HS2	0	AIR_HS2	24
28	AIR_AFT	1.8	AIR_AFT	23
29	AIR_HS	0.5	AIR_HS	22
30	RST_IF	3.3	RST_IF	21
31	TXD_WR	3.3	TXD_WR	20
32	RXD_WR	3.3	RXD_WR	19
33	SDA_AV	5	SDA_AV	18
34	SCL_AV	5	SCL_AV	17
35	RXD_IF	3.3	RXD_IF	16
36	TXD_IF	3.3	TXD_IF	15
37	CLK_IF	3.3	CLK_IF	14
38	REQ_IF	0	REQ_IF	13
39	BUSY_IF	0	BUSY_IF	12
40	CE_IF	3.3	CE_IF	11
41	RESET_TXT	3.3	RESET_TXT	10
42	RELAY	2.4	RELAY	9
43	REM_B	3.3	REM_B	8
44	PSW1	0	PSW1	7
45	PD_MAIN	0	PD_MAIN	6
46	WE_ROM	0	WE_ROM	5
47	AM_MUTE	0	AM_MUTE	4
48	N.C.	–	N.C.	3
49	N.C.	–	N.C.	2
50	ELITE_DET	AWZ6978 0V AWZ6979 3.3V	ELITE_DET	1

B AV BOARD ASSY — **A** MR MAIN BOARD ASSY

CN8504 (KM200NA15)		Voltage (V)	CN7451 (AKM1301)	
No.	Name		Name	No.
15	GND	0.0	GND	1
14	V+3V_STB	3.3	V+3V_STB	2
13	GND	0.0	GND	3
12	V+3V_UCOM	3.3	V+3V_UCOM	4
11	GND	0.0	GND	5
10	V+12V_16V	16.9	V+12V_16V	6
9	GND	0.0	GND	7
8	V+6V	6.7	V+6V	8
7	GND_D	0.0	GND_D	9
6	V+1V_DD	1.5	V+1V_DD	10
5	V+1V_DD	1.5	V+1V_DD	11
4	GND_D	0.0	GND_D	12
3	V+3V_DD	3.3	V+3V_DD	13
2	V+3V_DD	3.3	V+3V_DD	14
1	GND_D	0.0	GND_D	15

B AV BOARD ASSY — A MR MAIN BOARD ASSY

CN8651 (AKM1201)		Voltage (V)	CN7454 (AKM1201)	
No.	Name		Name	No.
1	AC_DET	2.7	AC_DET	50
2	KEY_B	3.3	KEY_B	49
3	STB_MT	0	STB_MT	48
4	AC_OFF	0	AC_OFF	47
5	SDA_EP2	3.3	SDA_EP2	46
6	SCL_EP2	3.3	SCL_EP2	45
7	VCC_EP	3.3	VCC_EP	44
8	N.C.	–	N.C.	43
9	N.C.	–	N.C.	42
10	WE_TXT	0	WE_TXT	41
11	N.C.	–	N.C.	40
12	MON_MUTE	0	MON_MUTE	39
13	DSUB_DET	0	DSUB_DET	38
14	PN2	0	PN2	37
15	VD_TXT	0	VD_TXT	36
16	HD_TXT	0	HD_TXT	35
17	PCA_V_SUB	0	PCA_V_SUB	34
18	PCA_H_SUB	0	PCA_H_SUB	33
19	PCA_V	0	PCA_V	32
20	PCA_H	0	PCA_H	31
21	BLK	0	BLK	30
22	GND	0	GND	29
23	GND	0	GND	28
24	GND	0	GND	27
25	SUBC_Y	4.5	SUBC_Y	26
26	GND	0	GND	25
27	SUBC_PR	4.5	SUBC_PR	24
28	GND	0	GND	23
29	SUBC_PB	4.5	SUBC_PB	22
30	GND	0	GND	21
31	SUB_C	4.3	SUB_C	20
32	GND	0	GND	19
33	SUB_Y	3.7	SUB_Y	18
34	GND	0	GND	17
35	G_CCTXT	1.3	G_CCTXT	16
36	GND	0	GND	15
37	R_CCTXT	1.3	R_CCTXT	14
38	GND	0	GND	13
39	B_CCTXT	1.3	B_CCTXT	12
40	GND	0	GND	11
41	MAINC_Y	4.5	MAINC_Y	10
42	GND	0	GND	9
43	MAINC_PR	4.5	MAINC_PR	8
44	GND	0	GND	7
45	MAINC_PB	4.5	MAINC_PB	6
46	GND	0	GND	5
47	MAIN_C	4.4	MAIN_C	4
48	GND	0	GND	3
49	MAIN_Y	4.4	MAIN_Y	2
50	GND	0	GND	1

I TUNER BOARD ASSY — A MR MAIN BOARD ASSY

CN7501 (AKM1236)		Voltage (V)	CN6951 (AKM1201)	
No.	Name		Name	No.
1	GND	0	GND_D	50
2	N.C.	–	N.C.	49
3	Not used		Not used	48
4	RESET	3.37	RST_DT	47
5	DTB_DET	0	DT_DET	46
6	N.C.	–	N.C.	45
7	GND	0	GND_D	44
8	N.C.	–	N.C.	43
9	N.C.	–	N.C.	42
10	GND	0	GND_D	41
11	TXDC	3.3	RXD_DT	40
12	RXDC	3.3	TXD_DT	39
13	GND	0	GND_D	38
14	–	–	–	37
15	GND	0	GND_D	36
16	GND	0	GND_D	35
17	GND	0	GND_D	34
18	GND	0	GND_D	33
19	GND	0	GND_D	32
20	GND	0	GND_D	31
21	GND	0	GND_D	30
22	GND	0	GND_D	29
23	Y0	0/3.3	Y0	28
24	Y1	0/3.3	Y1	27
25	Y2	0/3.3	Y2	26
26	Y3	0/3.3	Y3	25
27	Y4	0/3.3	Y4	24
28	Y5	0/3.3	Y5	23
29	Y6	0/3.3	Y6	22
30	Y7	0/3.3	Y7	21
31	GND	0	GND_D	20
32	UV0	0/3.3	UV0	19
33	UV1	0/3.3	UV1	18
34	UV2	0/3.3	UV2	17
35	UV3	0/3.3	UV3	16
36	UV4	0/3.3	UV4	15
37	UV5	0/3.3	UV5	14
38	UV6	0/3.3	UV6	13
39	UV7	0/3.3	UV7	12
40	GND	0	GND_D	11
41	HS	3.1	HS	10
42	GND	0	GND_D	9
43	VS	3.2	VS	8
44	GND	0	GND_D	7
45	DE	2.6	DE	6
46	GND	0	GND_D	5
47	CLK	1.6	CLK	4
48	GND	0	GND_D	3
49	OE_B	0	OE_B	2
50	GND	0	GND_D	1

A MR MAIN BOARD ASSY — FAN MOTOR

CN7202 , CN7204 (AKM1274)		Voltage (V)	CN6951 (AKM1201)	
No.	Name		Name	No.
1	FAN_12V	6.9		
2	FAN_NG	0		
3	GND	0		

B AV BOARD ASSY

H LED ASSY

CN8656 (KM200NA7)		Voltage (V)	CN7651 (AKM1293-A-TBB)	
No.	Name		Name	No.
1	V+3V_STB	3.3	V+3V_STB	1
2	LED_G	0	LED_G	2
3	LED_R	3.3	LED_R	3
4	GND	0	GND	4
5	LED_MDM	0	LED_MDM	5
6	LED_FCT	3.3	LED_FCT	6
7	GND	0.0	GND	7

B AV BOARD ASSY

K POWER SUPPLY UNIT

CN8501 (KM200NA16)		Voltage (V)	CP51 (KM200NA16)	
No.	Name		Name	No.
1	V+16.5V	17.6	V+16.5V	1
2	GND	0	GND	2
3	V+12V	12	V+12V	3
4	V+12V	12	V+12V	4
5	GND	0	GND	5
6	GND	0	GND	6
7	V+6.5V	6.8	V+6.5V	7
8	V+6.5V	6.8	V+6.5V	8
9	GND	0	GND	9
10	GND	0	GND	10
11	V+12V_STB	14.9	V+12V_STB	11
12	V+3V_STB	3.3	V+3V_STB	12
13	GND	0	GND	13
14	RELAY	2.4	RELAY	14
15	PD_TRIGGER	0	PD_TRIGGER	15
16	AC_DET	2.7	AC_DET	16

B AV BOARD ASSY

F SR ASSY

CN7801 (AKM1233)		Voltage (V)	CN9452 (CKS3826)	
No.	Name		Name	No.
1	NC	–	NC	12
2	NC	–	NC	11
3	TXD_SR4	0	TXD_SR4	10
4	RXD_SR4	5	RXD_SR4	9
5	5V_STD	5	5V_STD	8
6	NC	–	NC	7
7	GND	0.0	GND	6
8	REM_B	5	REM_B	5
9	SR_IN	3.3	SR_IN	4
10	GND	0.0	GND	3
11	IR	0.0	IR	2
12	GND	0.0	GND	1

A MR MAIN BOARD ASSY

TRAP SW

CN7203 (AKM1213)		Voltage (V)		
No.	Name		Name	No.
1	TRAP_SW	0.7		
2	NC			
3	V+3V_UCOM	3.3		

B AV BOARD ASSY

I TUNER BOARD ASSY

CN8502 (KM200NA12)		Voltage (V)	CN1002 (AKM1298-A-TBB)	
No.	Name		Name	No.
1	NC	–	NC	1
2	GHD_D	0	GHD_D	2
3	V+3.3VA	3.3	V+3.3VA	3
4	GND_D	0.0	GND_D	4
5	V+5VA	5	V+5VA	5
6	GND_D	0	GND_D	6
7	V+6.5VA	6.8	V+6.5VA	7
8	GND_D	0.0	GND_D	8
9	V+12V	12	V+12V	9
10	GND_D	0.0	GND_D	10
11	V+30V	31	V+30V	11
12	GND_D	0.0	GND_D	12

B AV BOARD ASSY

I TUNER BOARD ASSY

CN8503 (KM200NA14)		Voltage (V)	CN1003 (AKM1300-A-TBB)	
No.	Name		Name	No.
1	GND_D	0	GND_D	1
2	V+6.5VD	6.8	V+6.5VD	2
3	GND_D	0	GND_D	3
4	V+5VD	5	V+5VD	4
5	GND_D	0	GND_D	5
6	V+1.8VD	1.8	V+1.8VD	6
7	GND_D	0	GND_D	7
8	V+3.3V2	3.3	V+3.3V2	8
9	GND_D	0	GND_D	9
10	V+3.3VD	3.3	V+3.3VD	10
11	V+3.3VD	3.3	V+3.3VD	11
12	GND_D	0	GND_D	12
13	V+2.5VD	2.5	V+2.5VD	13
14	GND_D	0	GND_D	14

A MR MAIN BOARD ASSY

E MDR ASSY

CN7402 (AKM1234)		Voltage (V)	CN9302 (CKS3830)	
No.	Name		Name	No.
16	GND_D	0	GND_D	1
15	AUDIO_L	0	AUDIO_L	2
14	ACT3V	3.3	ACT3V	3
13	AUDIO_R	0	AUDIO_R	4
12	V+3V_UCOM	3.3	V+3V_UCOM	5
11	STB3V	3.3	STB3V	6
10	SP_MUTE	3.3	SP_MUTE	7
9	MTXD	3.3	MTXD	8
8	FIELD	0	FIELD	9
7	MRXD	3.3	MRXD	10
6	REM_B	3.3	REM_B	11
5	P_ST_B	0	P_ST_B	12
4	AC_OFF	0	AC_OFF	13
3	REQ	0	REQ	14
2	KEY_B	3.3	KEY_B	15
1	STB_MT	0	STB_MT	16

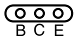
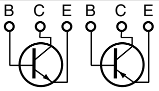
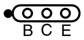
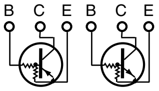
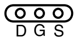
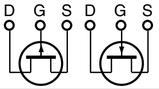
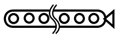
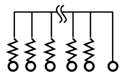
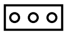
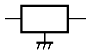
B AV BOARD ASSY ## G FRONT ASSY

CN8653 (AKM1201)		Voltage (V)	CN9502 (AKM1201)	
No.	**Name**		**Name**	**No.**
50	V+9V_A	9	V+9V_A	1
49	V+5V_A	5.0	V+5V_A	2
48	V+3VCOM	3.3	V+3VCOM	3
47	WE_ROM	0.0	WE_ROM	4
46	PC_V	0.0	PC_V	5
45	GND	0.0	GND	6
44	PC_H	0.0	PC_H	7
43	GND	0.0	GND	8
42	NC	–	NC	9
41	GND	0.0	GND	10
40	NC	–	NC	11
39	GND	0.0	GND	12
38	NC	–	NC	13
37	GND	0.0	GND	14
36	GND	0.0	GND	15
35	PC_RCH	4.4	PC_RCH	16
34	GND	0.0	GND	17
33	PC_LCH	4.4	PC_LCH	18
32	GND	0.0	GND	19
31	V4_R	4.4	V4_R	20
30	GND	0.0	GND	21
29	V4_L	4.4	V4_L	22
28	GND	0.0	GND	23
27	GND	0.0	GND	24
26	V4_V	3.9	V4_V	25
25	GND	0.0	GND	26
24	V4_S2	0.1	V4_S2	27
23	V4_SPLUG	4.9	V4_SPLUG	28
22	GND	0.0	GND	29
21	V4_C	4.4	V4_C	30
20	GND	0.0	GND	31
19	V4_Y	3.9	V4_Y	32
18	GND	0.0	GND	33
17	GND	0.0	GND	34
16	NC	–	NC	35
15	NC	–	NC	36
14	GND	0.0	GND	37
13	NC	–	NC	38
12	GND	0.0	GND	39
11	GND	0.0	GND	40
10	Y_COMP4	4.6	Y_COMP4	41
9	GND	0.0	GND	42
8	GND	0.0	GND	43
7	PB_COMP4	4.6	PB_COMP4	44
6	GND	0.0	GND	45
5	GND	0.0	GND	46
4	PR_COMP4	4.6	PR_COMP4	47
3	GND	0.0	GND	48
2	GND	0.0	GND	49
1	COMP_PLUG	0.0	COMP_PLUG	50

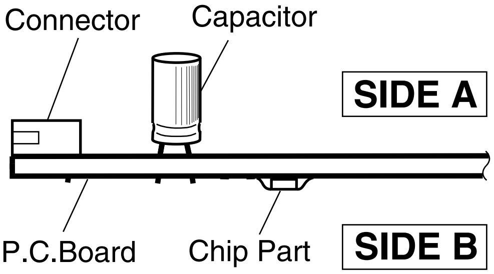
4. PCB CONNECTION DIAGRAM

NOTE FOR PCB DIAGRAMS :

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
 B C E	 B C E B C E	Transistor
 B C E	 B C E B C E	Transistor with resistor
 D G S	 D G S D G S	Field effect transistor
		Resistor array
		3-terminal regulator

3. The parts mounted on this PCB include all necessary parts fo several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.
4. View point of PCB diagrams.

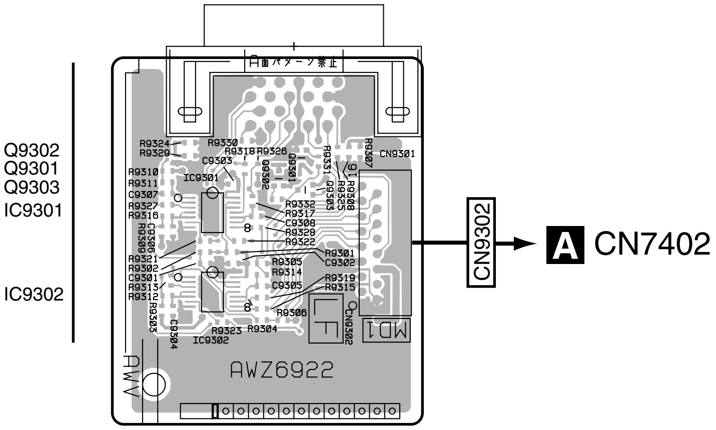

Connector
Capacitor
SIDE A
P.C.Board
Chip Part
SIDE B

4.1 SW and MDR ASSYS

SIDE A

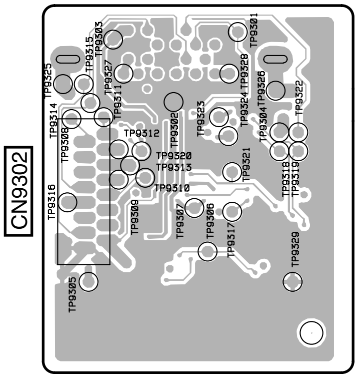
SIDE B

E MDR ASSY


Q9302
Q9301
Q9303
IC9301
IC9302
IC9301
IC9302
CN9301
CN9302
A CN7402
AWZ6922
MD1

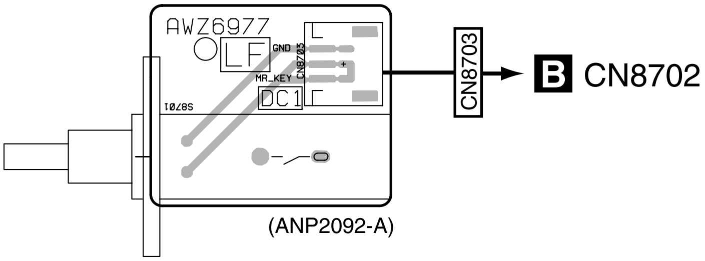
(ANP2092-A)

E MDR ASSY



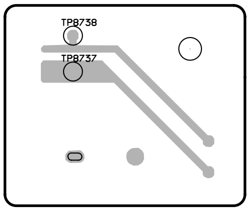
(ANP2092-A)

J SW ASSY


AWZ6977
LF
DC1
GND
MR_KEY
CN8703
S8701
CN8703
B CN8702

(ANP2092-A)

J SW ASSY

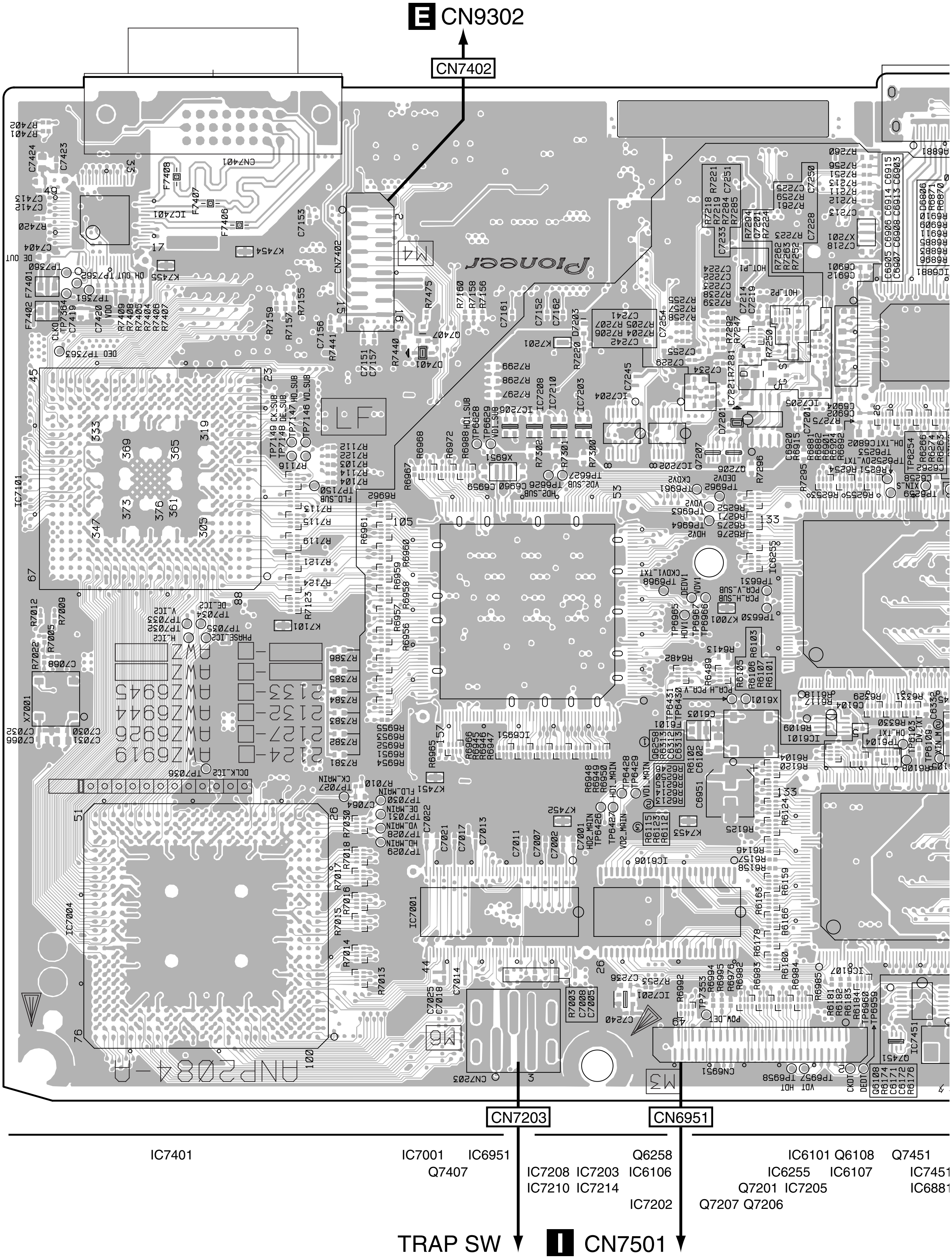

TP8738
TP8737

(ANP2092-A)

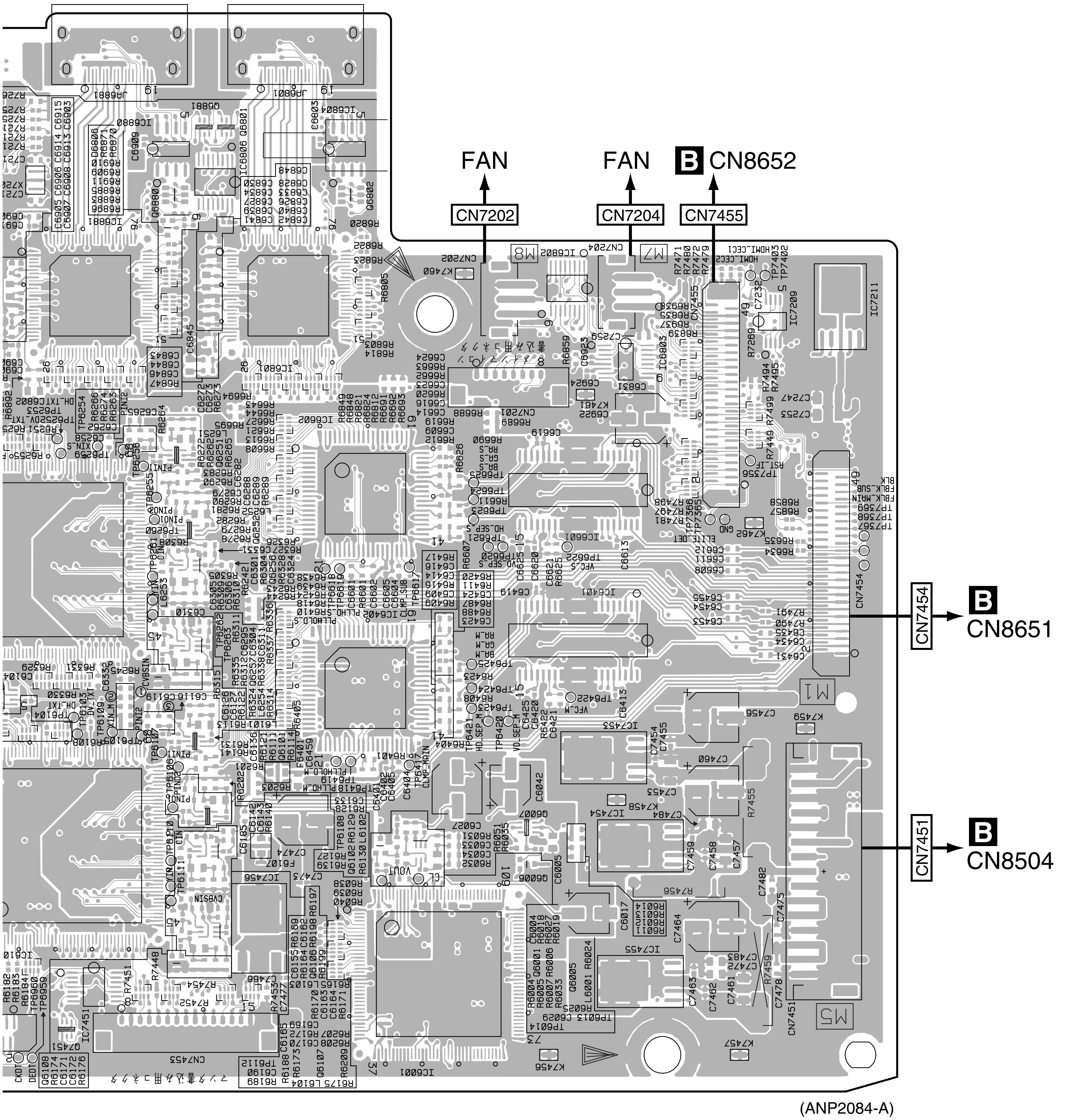
4.2 MR MAIN BOARD ASSY

SIDE A

A MR MAIN BOARD ASSY


E CN9302
CN7402
Pioneer
CN7401
IC7401
IC7101
IC7004
IC7001
IC6951
IC6255
IC6101
CN7203
CN6951
ANP2084-
IC7401
IC7001 IC6951
Q7407
IC7208 IC7203 IC6106
IC7210 IC7214
Q6258
IC7202
IC6101 Q6108 Q7451
IC6255 IC6107 IC7451
Q7201 IC7205 IC6881
Q7207 Q7206
TRAP SW
I CN7501

SIDE A


FAN
FAN
B CN8652
CN7202
CN7204
CN7455
CN7454
B CN8651
CN7451
B CN8504
M1
M5
M7
M8

(ANP2084-A)

Q6108 Q7451 Q6880 Q6251 IC7458 Q6106 IC6001 Q6001 Q6005 IC7455 IC7209 IC7211
C6107 IC7451 IC6880 Q6252 Q6101 Q6107 Q6006 IC6601 IC7454 IC6803
IC6881 Q6881 Q6257 IC6602 Q6102 Q6007 IC6401 IC7453
IC6801 Q6256 Q6802 IC6402 IC6802
Q6801 Q6806 IC6804

A

SIDE B

A

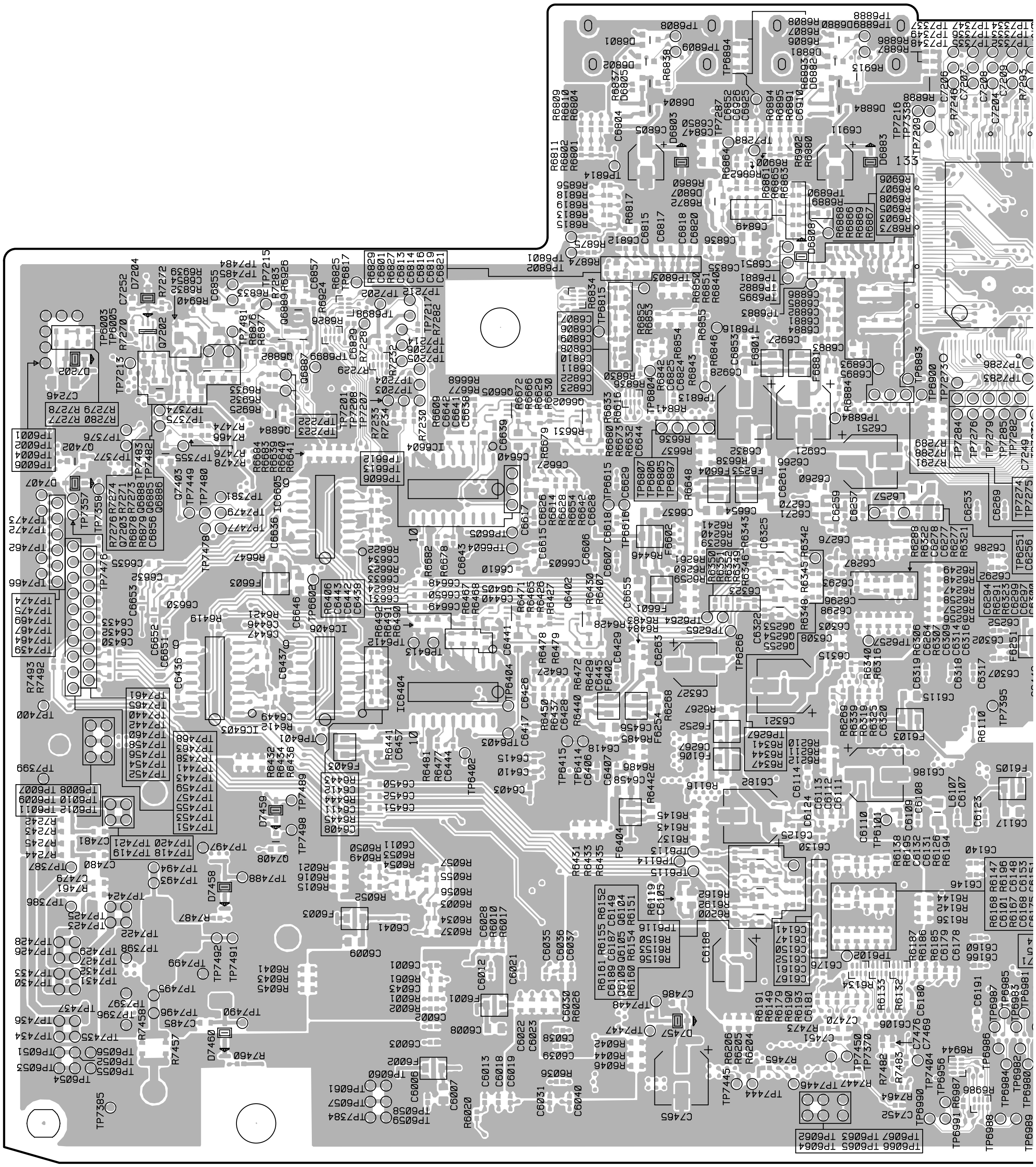
A MR MAIN BOARD ASSY

B

C

D

E

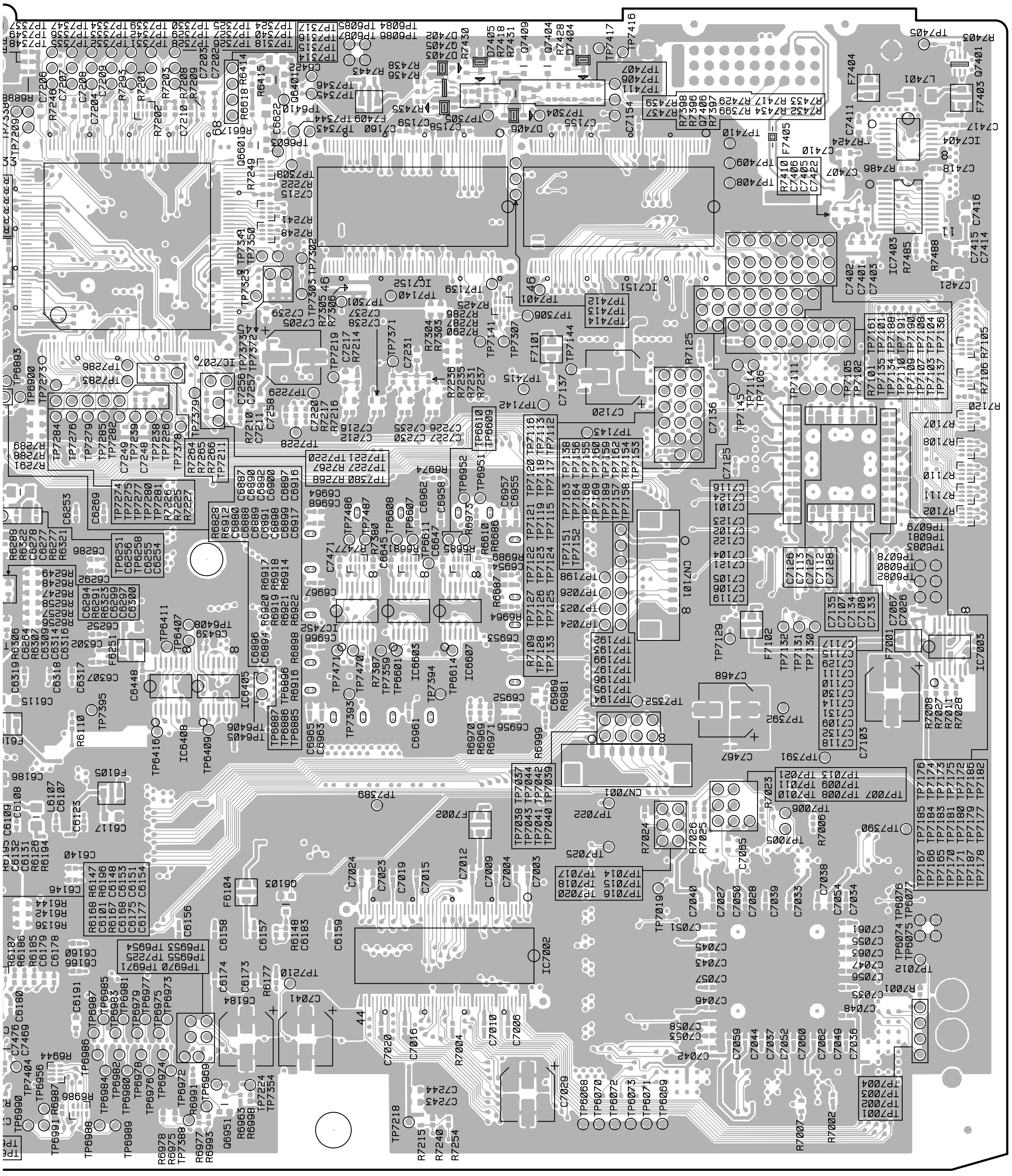


Q7402 Q6886 Q7408 IC6406 IC6404 Q6405 Q6402 Q6109 Q6255
Q7203 Q7202 IC6403 Q6884 Q6887 IC6604 Q6605 Q6602 Q6105 Q6254
Q7403 Q6889 IC6605 Q6104 Q6253
Q6882

F

A

SIDE B



(ANP2084-A)

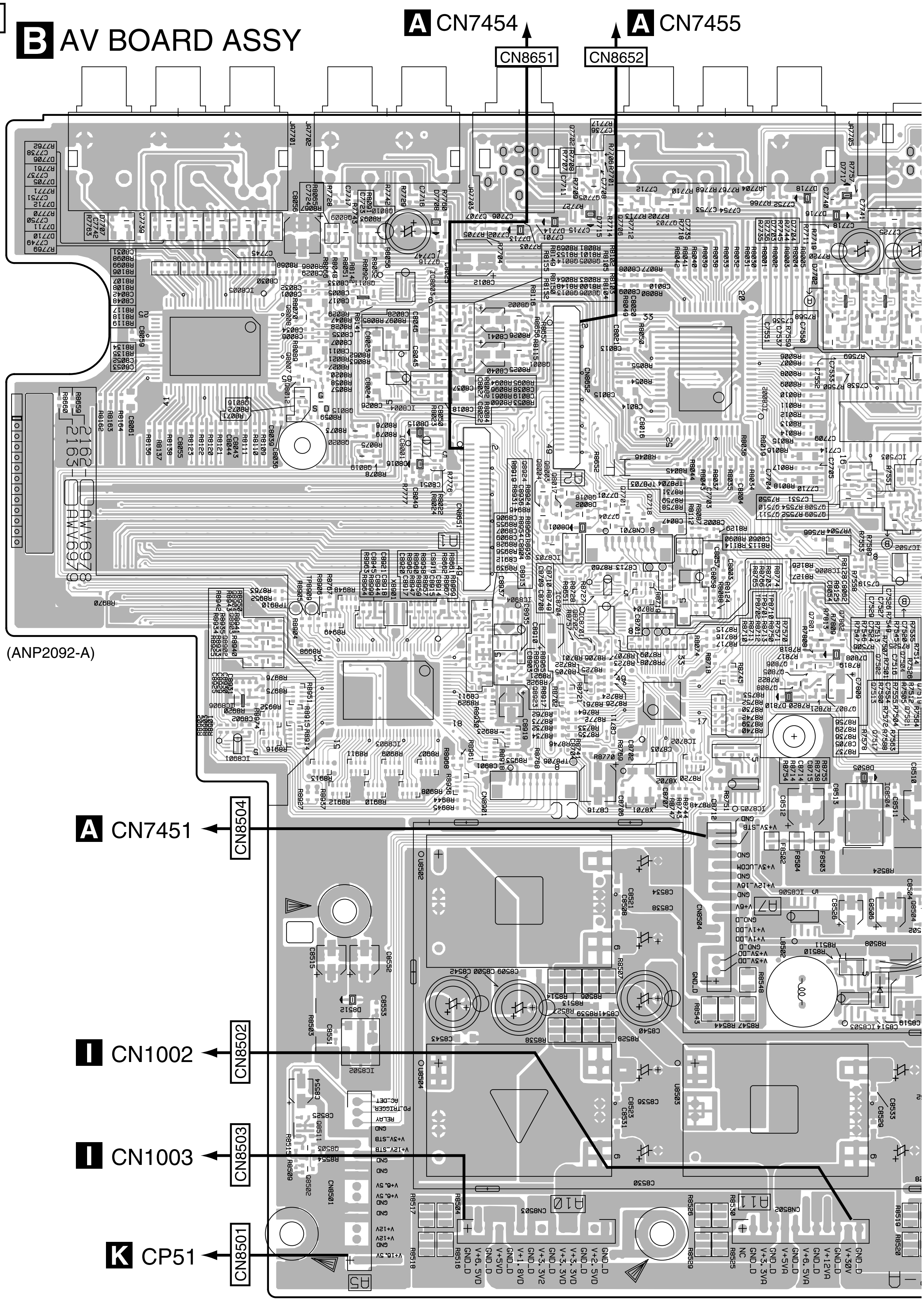
IC6408 Q6103 IC6603 IC6607 IC7002 IC7151 Q7406 IC7403 IC7003
IC6405 IC7452 IC7152 IC7404
IC7207 Q6601 Q6401 Q7405 Q7409 Q7404 Q7401

A

4.3 AV BOARD and SR ASSY

SIDE A

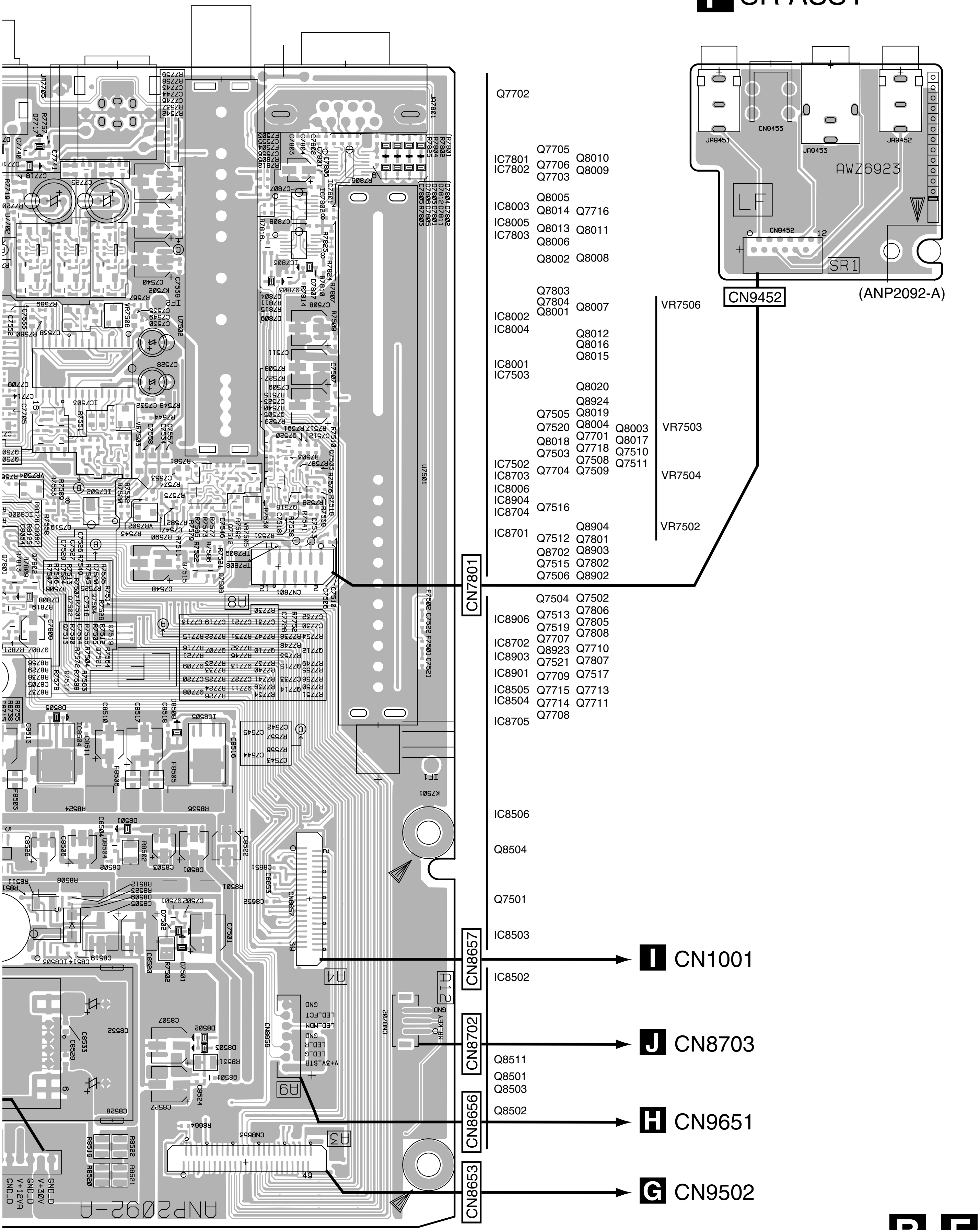
B AV BOARD ASSY


A CN7454
CN8651
A CN7455
CN8652
(ANP2092-A)
AWV6978
AWV6979
A CN7451
CN8504
I CN1002
CN8502
I CN1003
CN8503
K CP51
CN8501
A10
A11
A5
GND_D
V+6.5VD
V+5VD
V+1.8VD
V+3.3V2
V+3.3VD
V+2.5VD
NC
V+3.3VA
V+5VA
V+6.5VA
V+12VA
V+30V
V+3V_STB
V+5V_UCOM
V+12V_16V
V+6V
V+16.5V
V+12V
V+6.5V
AC_DET
PD_TRIGGER
RELAY

B

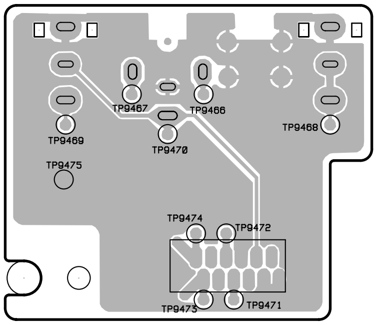
SIDE A

F SR ASSY


AWZ6923
LF
SR1
CN9453
CN9452
JA9451
JA9453
JA9452
12
CN9452
(ANP2092-A)
Q7702
IC7801
IC7802
Q7705
Q7706
Q7703
Q8010
Q8009
IC8003
IC8005
IC7803
Q8005
Q8014
Q8013
Q8006
Q8002
Q7716
Q8011
Q8008
IC8002
IC8004
Q7803
Q7804
Q8001
Q8007
Q8012
Q8016
Q8015
VR7506
IC8001
IC7503
Q8020
Q8924
Q7505
Q7520
Q8018
Q7503
Q8019
Q8004
Q7701
Q7718
Q7508
Q8003
Q8017
Q7510
Q7511
VR7503
IC7502
IC8703
IC8006
IC8904
IC8704
Q7704
Q7509
Q7516
VR7504
IC8701
Q7512
Q8702
Q7515
Q7506
Q8904
Q7801
Q8903
Q7802
Q8902
VR7502
CN7801
IC8906
IC8702
IC8903
IC8901
IC8505
IC8504
IC8705
Q7504
Q7513
Q7519
Q7707
Q8923
Q7521
Q7709
Q7715
Q7714
Q7708
Q7502
Q7806
Q7805
Q7808
Q7710
Q7807
Q7517
Q7713
Q7711
IC8506
Q8504
Q7501
IC8503
CN8657
I CN1001
IC8502
CN8702
J CN8703
Q8511
Q8501
Q8503
Q8502
CN8656
H CN9651
CN8653
G CN9502
ANP2092-A
GND_D
V+30V
GND_D
V+12VA
GND_D

SIDE B

F SR ASSY


TP9467
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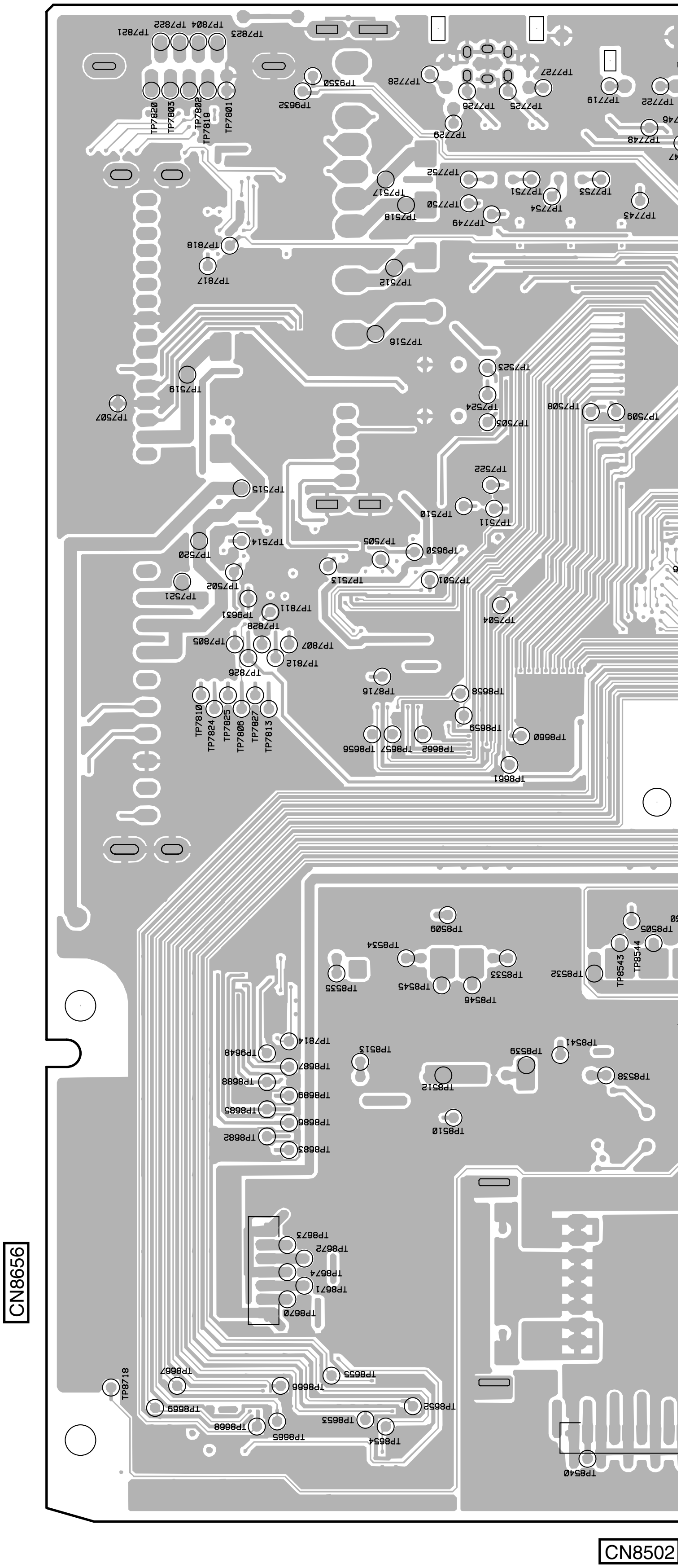
TP9470
TP9468
TP9475
TP9474
TP9472
TP9473
TP9471

(ANP2092-A) CN9452


TP7821
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TP7804
TP7823
TP9550
TP7728
TP7727
TP7719
TP7722
TP7820
TP7803
TP7802
TP7819
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TP9632
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TP7725
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TP7751
TP7755
TP7517
TP7750
TP7754
TP7518
TP7749
TP7743
TP7818
TP7817
TP7512
TP7516
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TP7519
TP7524
TP7507
TP7508
TP7509
TP7503
TP7522
TP7515
TP7510
TP7511
TP7520
TP7514
TP7505
TP9650
TP7513
TP7501
TP7521
TP7502
TP7811
TP9651
TP7504
TP7828
TP7805
TP7807
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TP8546
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TP8552
TP7814
TP8513
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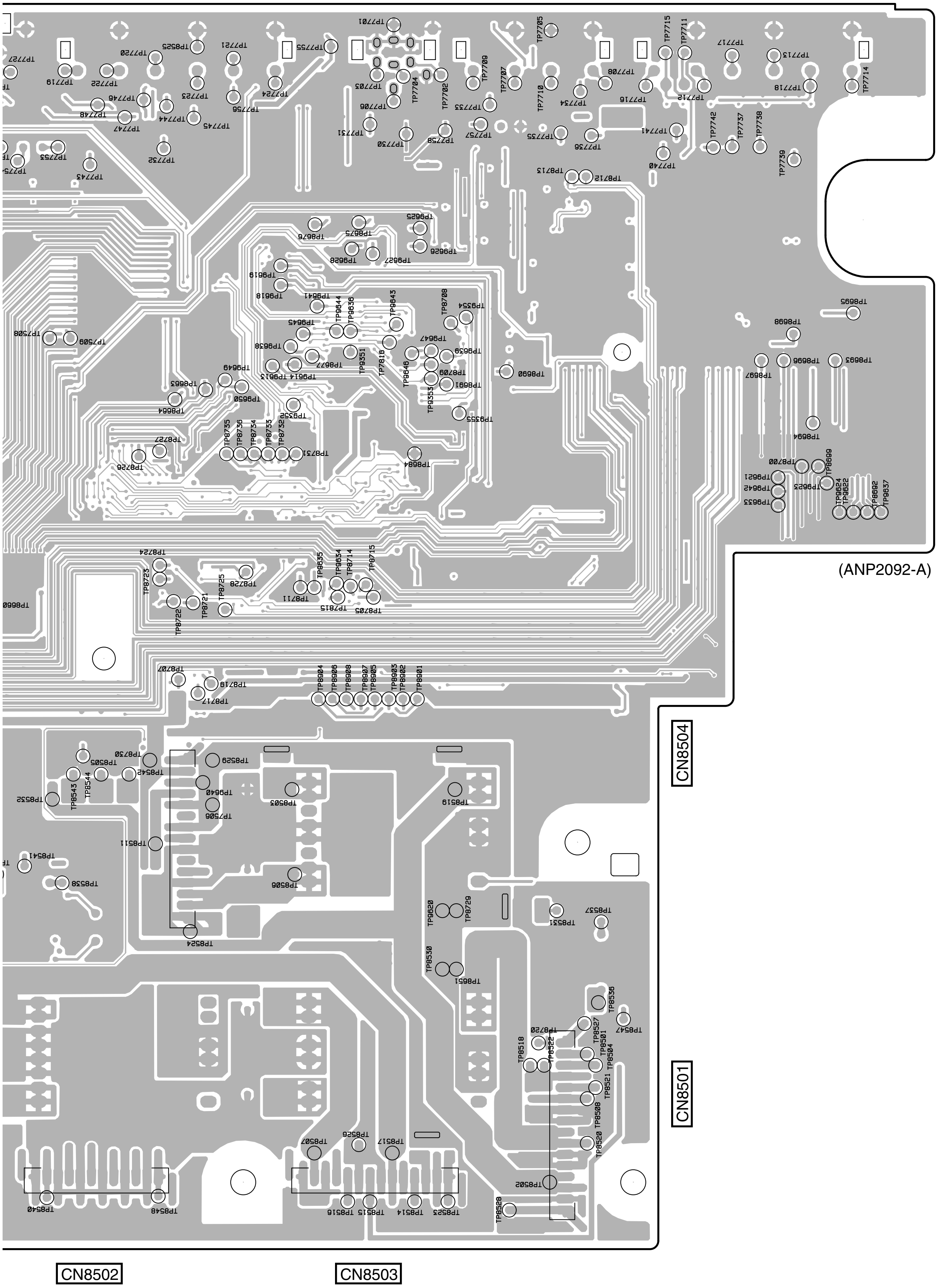
TP8541
TP9648
TP8687
TP8688
TP8689
TP8512
TP8538
TP8685
TP8686
TP8510
TP8682
TP8683
TP8673
TP8672
TP8674
TP8671
TP8670
TP8718
TP8667
TP8655
TP8666
TP8669
TP8652
TP8668
TP8653
TP8665
TP8654
TP8540
CN8656
CN8502

SIDE B

B AV BOARD ASSY


(ANP2092-A)
CN8504
CN8501
CN8502
CN8503

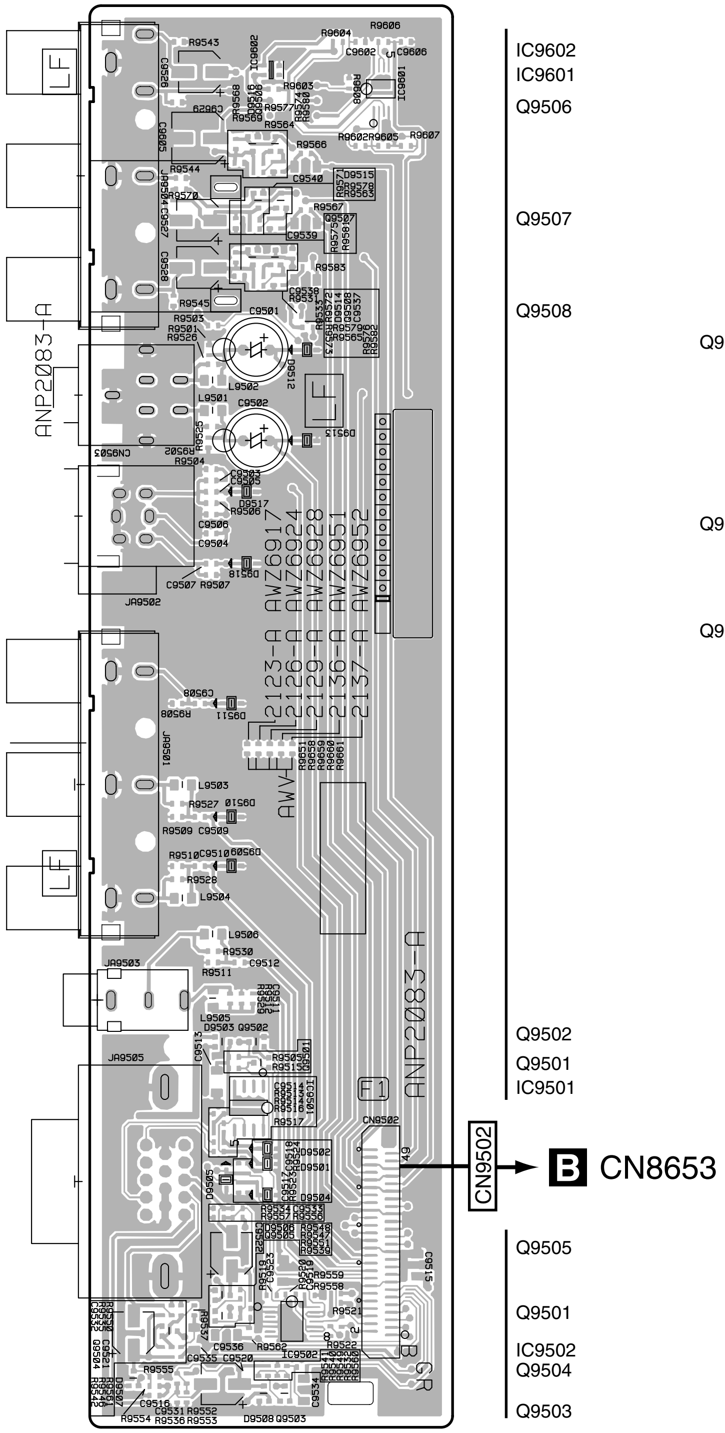
B

4.4 FRONT and LED ASSY

SIDE A

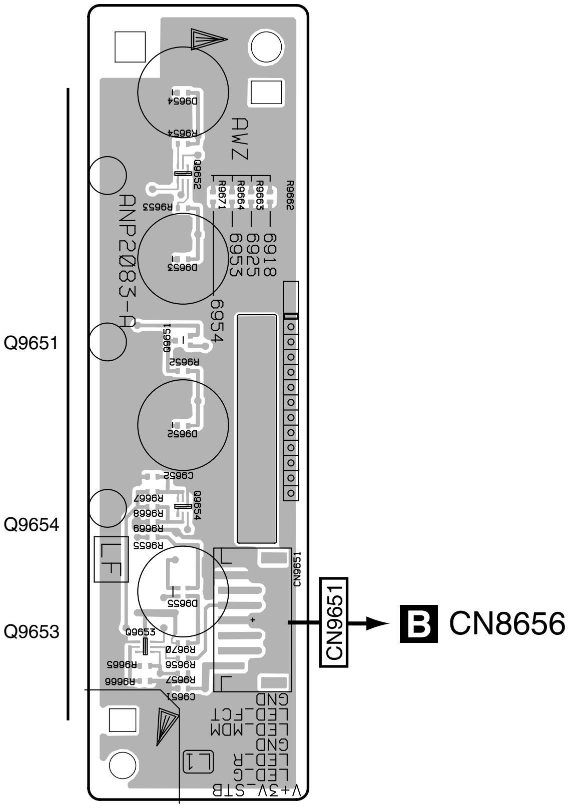
SIDE A

G FRONT ASSY


IC9602
IC9601
Q9506
Q9507
Q9508
Q9502
Q9501
IC9501
CN9502
B CN8653
Q9505
Q9501
IC9502
Q9504
Q9503
ANP2083-A
AWZ6917
AWZ6924
AWZ6928
AWZ6951
AWZ6952
2123-A
2126-A
2129-A
2136-A
2137-A
AWV
JA9501
JA9502
JA9503
JA9505
CN9503
LF
F1
B
GR

(ANP2083-A)

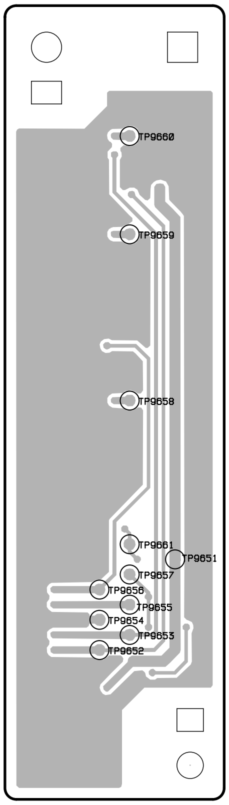
H LED ASSY


Q9651
Q9654
Q9653
CN9651
B CN8656
AWZ
ANP2083-A
6918
6925
6953
6954
D9654
D9653
D9652
D9655
LF
GND
LED_FCT
LED_MDM
GND
LED_R
LED_G
V+3V_STB

(ANP2083-A)

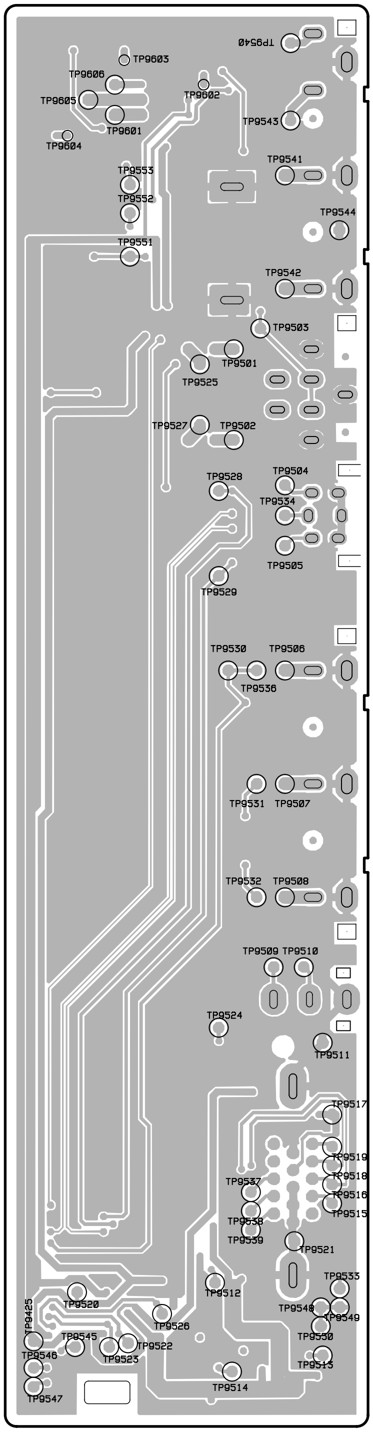
SIDE B **SIDE B**

H LED ASSY


TP9660
TP9659
TP9658
TP9661
TP9651
TP9657
TP9656
TP9655
TP9654
TP9653
TP9652

(ANP2083-A)

G FRONT ASSY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TP9501
TP9525
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TP9528
TP9504
TP9534
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TP9530
TP9506
TP9536
TP9531
TP9507
TP9532
TP9508
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TP9521
TP9533
TP9512
TP9548
TP9549
TP9520
TP9425
TP9526
TP9550
TP9545
TP9522
TP9546
TP9523
TP9513
TP9514
TP9547

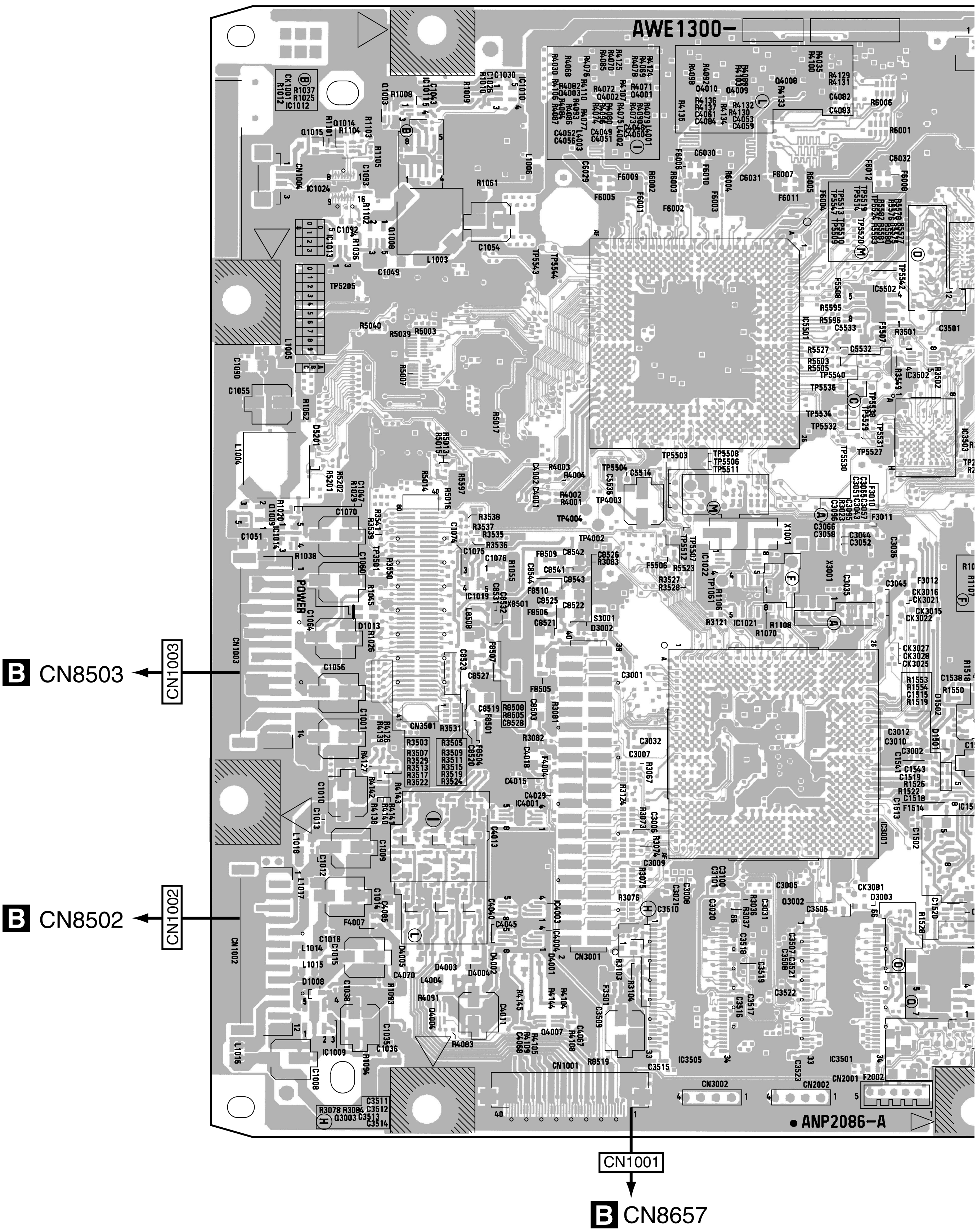
(ANP2083-A)

G H **G H**

4.5 TUNER BOARD ASSY

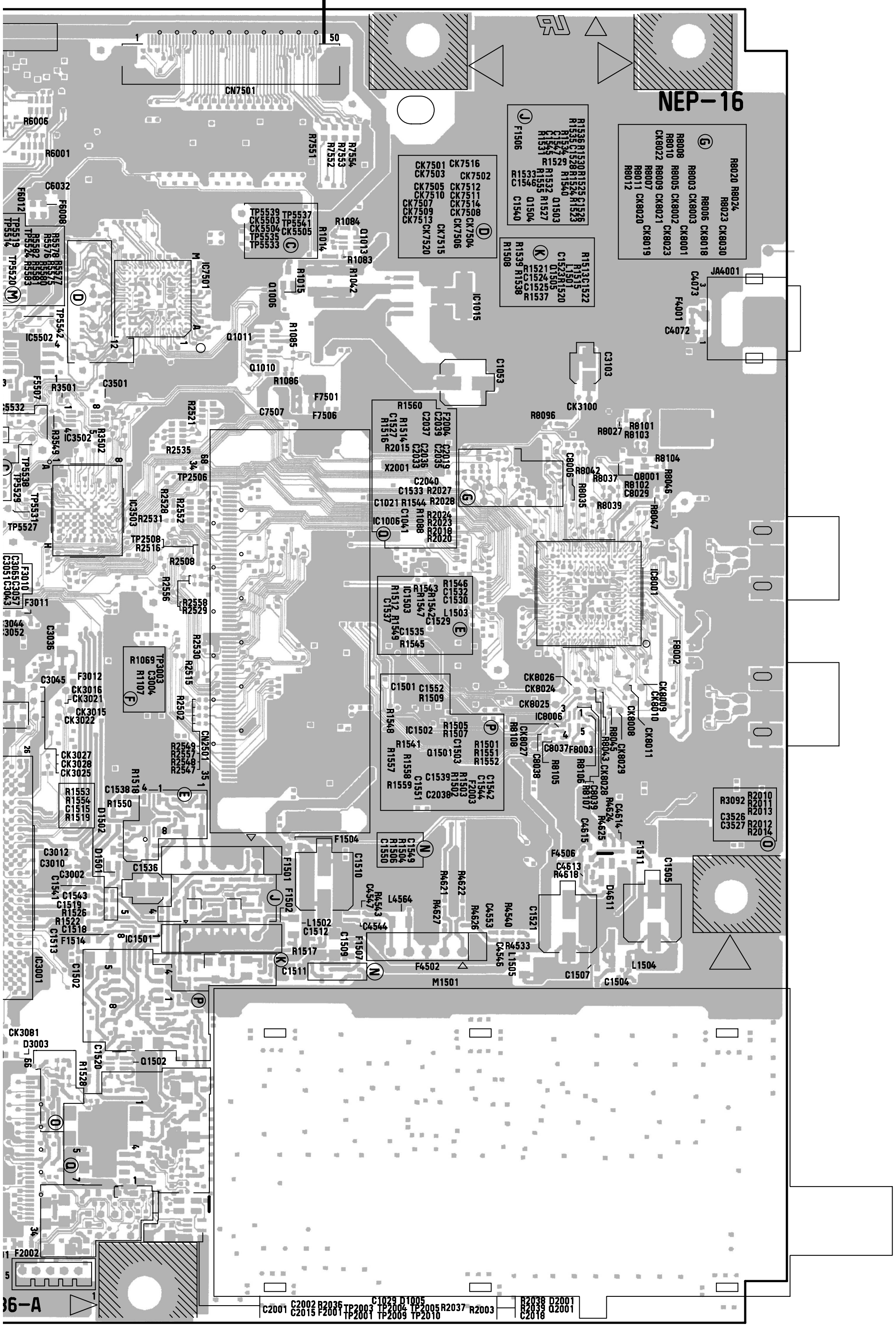
SIDE A

I TUNER BOARD ASSY


AWE1300-
POWER
CN1003
CN1002
CN1001
B CN8503
B CN8502
B CN8657
IC5501
IC3001
IC3501
IC3505
IC5502
IC3502
IC1024
IC1012
IC1009
IC1019
IC1021
IC1022
IC4001
IC4003
CN3501
CN3001
CN3002
CN2002
CN2001
CN1004
X1001
X3001
X8501
TP5205
ANP2086-A

SIDE A

A CN6951


CN7501
50
1
NEP-16
CN7501
IC7501
IC5502
IC3502
IC3503
IC1006
IC8001
IC1015
IC1502
IC1501
IC8006
IC3001
JA4001
Q1501
Q1502
Q1006
Q1010
Q1011
Q8001
X2001
L1502
L1503
L1504
L4564
M1501
CN2501
D1501
D1502
D4611
F1504
F1511
F4506
C1023 D1005
R2038 Q2001
R2039 Q2001
C2018
C2001
C2002 R2036
C2015 F2001
TP2003 TP2004 TP2005 R2037
TP2001 TP2009 TP2010
R2003
86-A
F2002

(ANP2086-B)

Q4001 IC1010
Q4002 IC1011
Q4003 IC1012
Q1003 Q4008
Q4009
Q1014
Q4010
Q1015

Q1503
Q1504
IC1024
Q1013
IC7501
Q1505
Q1008
Q1006 IC1015
IC1013
IC5502
Q1011

Q1010
IC5501

IC3502

IC3503

IC1006

IC8001
Q1009
IC1503
IC1014

IC1022

IC1019
IC8006
IC1021
IC1502
Q1501

IC1501
IC4001
IC3001

IC4003
Q1502
IC4004

Q4004

IC3501
IC1009
IC3505

Q3003
Q2001

SIDE B

A

I TUNER BOARD ASSY

IC6001
IC6002
IC6003
IC6004

IC3004

IC7502

B

IC7503
IC4610
IC7504
IC7505
Q1012

IC8004
Q1005

IC8003
IC5201 IC8005
IC8002

IC2502

C

IC2505

IC2506

IC2503

IC8501

IC2504
IC2501

IC1008

IC1007

D

IC1004

IC1023
IC4007
IC4005
IC1016

Q8503

E

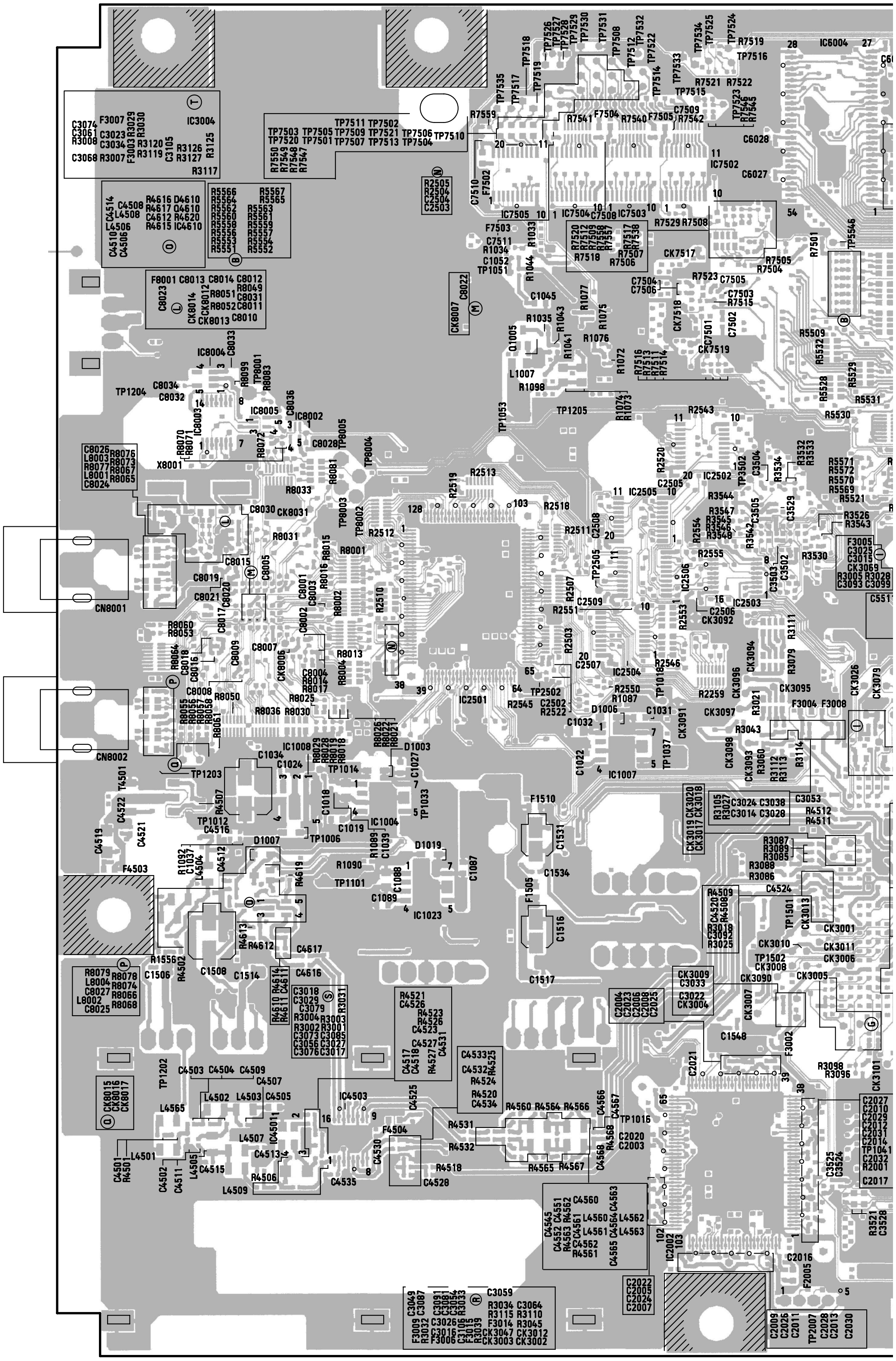
IC4503
IC4005
IC3003
IC4501

Q4006

IC4006

Q1001
IC2002

F


CN8001
CN8002
IC2501
IC2502
IC2503
IC2504
IC2505
IC2506
IC7502
IC7503
IC7504
IC7505
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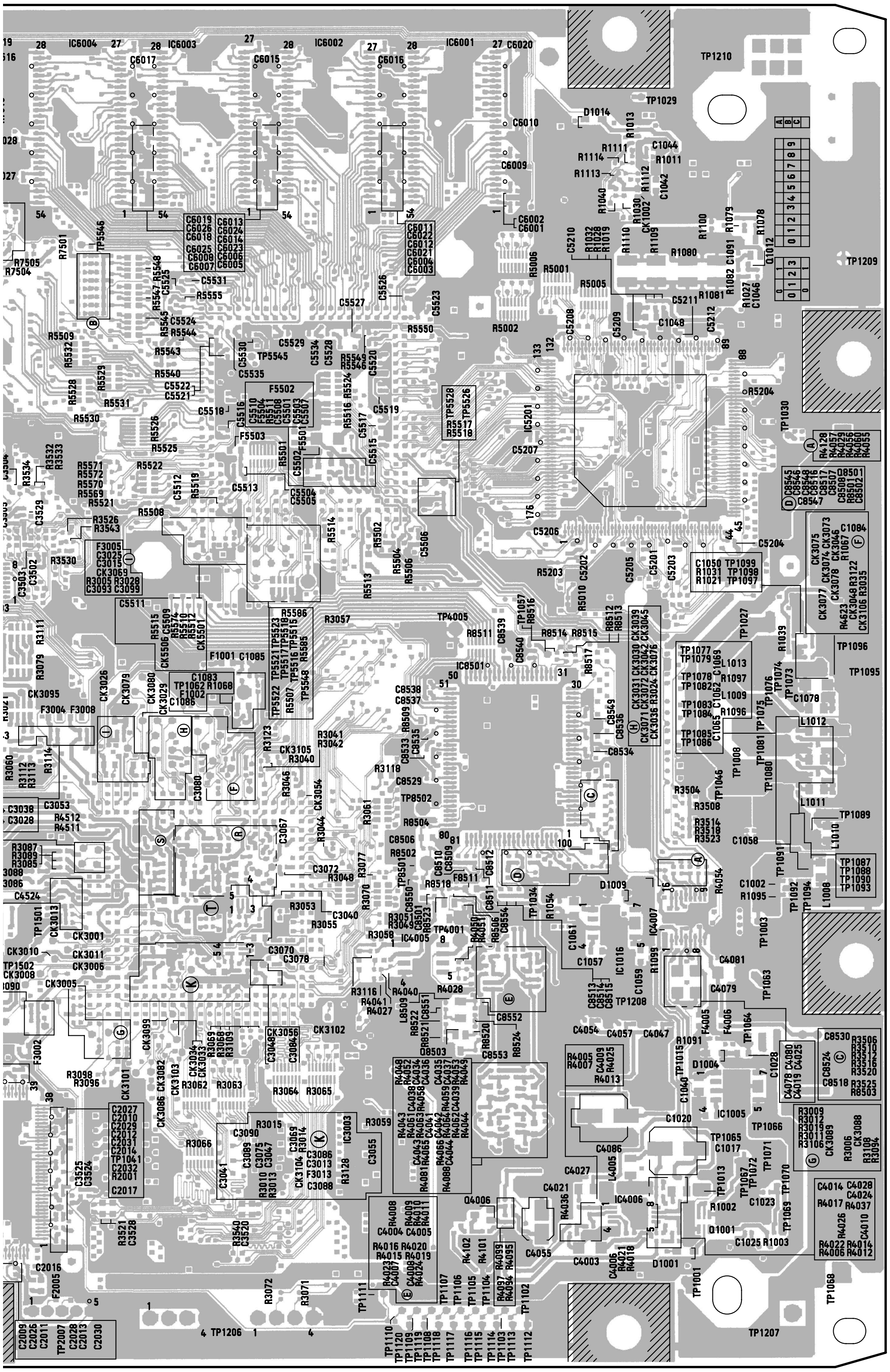
IC8002
IC8003
IC8004
IC8005
IC1004
IC1007
IC1008
IC1023
IC3004
IC4503
IC4510
IC4610
IC6004
IC2002
X8001

I

SIDE B



(ANP2086-B)

4.6 POWER SUPPLY UNIT

SIDE A **K** POWER SUPPLY UNIT **SIDE A**

A

B

Q52
Q53

C

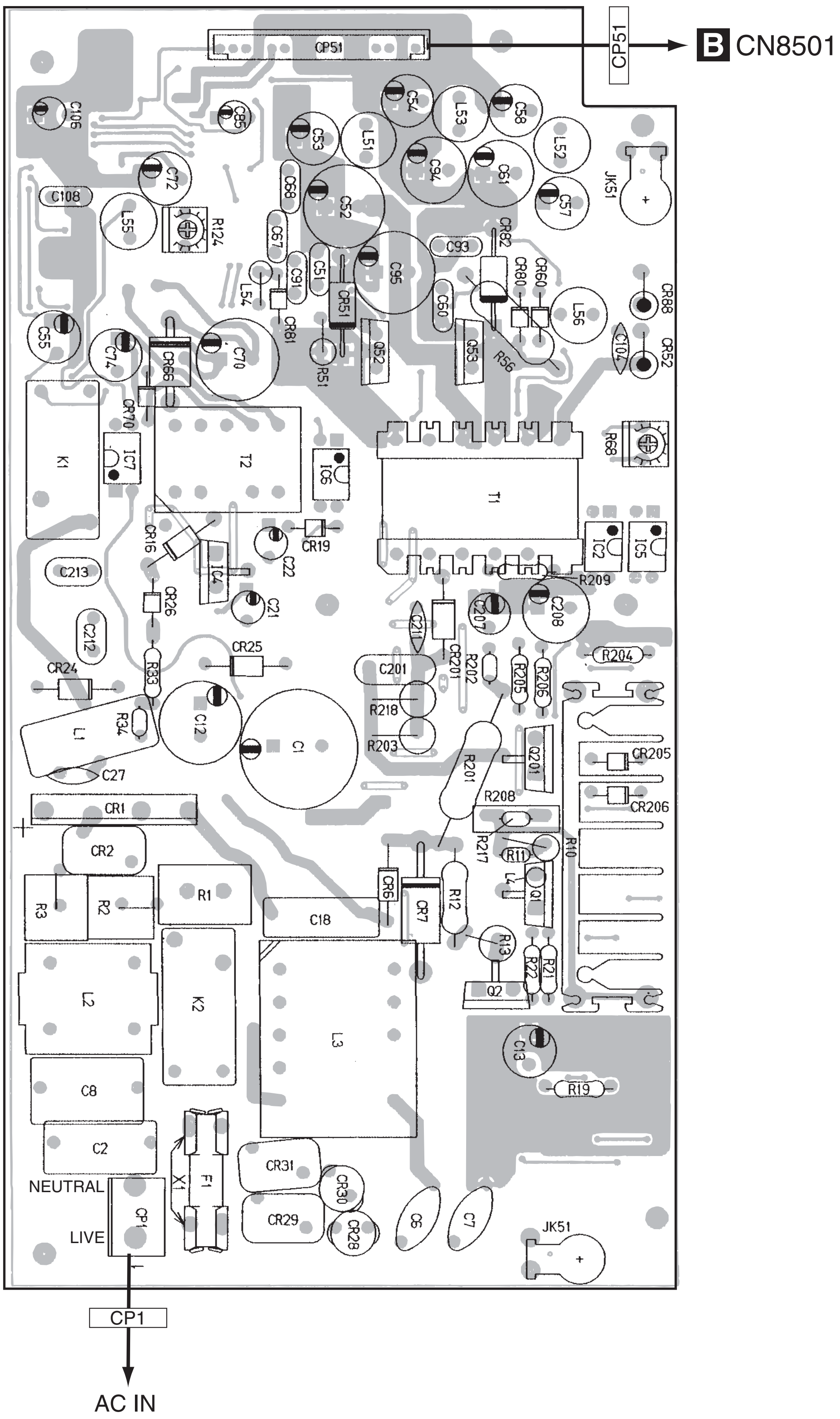
IC2
IC5

Q201

D

Q2

E


CP51
CP51
B CN8501
C106
C85
C53
L51
C54
L53
C58
L52
C72
C108
L55
R124
C68
C52
C94
C61
C57
JK51
C67
C93
CR82
C91
C51
C95
CR80
CR60
L54
CR81
CR51
C60
L56
CR88
C55
C74
CR66
C70
R51
Q52
Q53
R56
C104
CR52
CR70
K1
IC7
T2
IC6
R68
T1
CR16
CR19
C22
IC4
IC2
IC5
C213
CR26
C21
C211
CR201
C207
C208
R209
C212
CR25
R33
R202
R205
R206
R204
CR24
C201
R218
C12
R34
L1
C1
R203
R201
Q201
CR205
C27
CR206
CR1
R208
CR2
R217
R11
R10
R3
R2
R1
CR6
CR7
R12
L4
Q1
C18
R13
R22
R21
L2
K2
L3
Q2
C13
C8
R19
C2
CR31
F1
X1
NEUTRAL
CR30
CP1
LIVE
CR29
CR28
C6
C7
JK51
CP1
AC IN

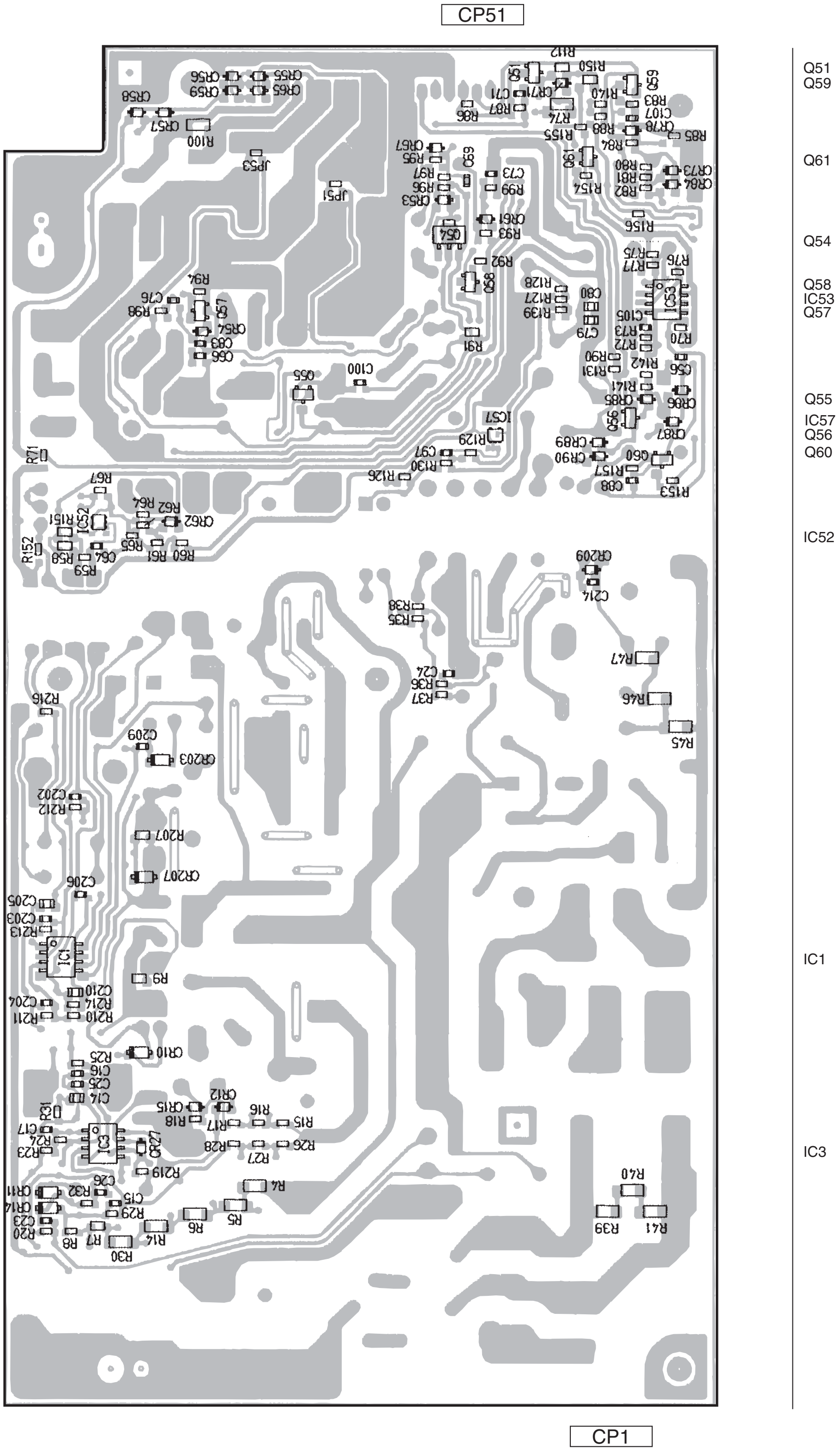
F

K **K**

SIDE B

K POWER SUPPLY UNIT

SIDE B


CP51
Q51
Q59
Q61
Q54
Q58
IC53
Q57
Q55
IC57
Q56
Q60
IC52
IC1
IC3
CP1
CR55
CR56
CR59
CR65
CR58
CR57
R100
JP53
JP51
R94
C76
R98
Q57
CR54
C83
C66
Q55
C100
R71
R67
R64
R62
CR62
R151
IC52
R152
R58
C64
R59
R65
R61
R60
R112
R150
Q51
C71
R87
R86
R140
Q59
R83
C107
CR78
R85
R74
R155
R88
R84
CR67
R95
R97
R96
CR53
Q69
C73
R99
Q61
R80
R81
R82
R154
CR73
CR84
CR61
R93
Q54
R156
CR75
R77
R76
R92
Q58
R128
R127
R139
C80
C79
C105
IC53
R73
R72
R70
R91
R90
R131
R142
R141
C56
CR85
CR86
Q56
IC57
R129
C97
R130
R126
CR89
CR90
R157
Q60
C88
CR87
R153
CR209
C214
R38
R35
R47
C24
R36
R37
R46
R45
R216
C209
CR203
C202
R212
R207
CR207
C206
C205
C203
R213
IC1
R9
C210
R214
R210
C204
R211
CR10
R25
C16
C25
C14
R31
CR12
CR15
R16
R18
R17
R15
C17
R24
R23
IC3
R27
R28
R26
R27
R219
R4
R40
C26
CR11
R32
C15
CR14
R29
C23
R20
R6
R5
R39
R41
R8
R7
R14
R30

5. PCB PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560 Ω → 56 x 10^1 → 561 .... RD1/4PU$\boxed{5}\boxed{6}\boxed{1}$J
47k Ω → 47 x 10^3 → 473 .... RD1/4PU$\boxed{4}\boxed{7}\boxed{3}$J
0.5 Ω → R50 .... RN2H$\boxed{R}\boxed{5}\boxed{0}$K
1 Ω → 1R0 .... RS1P$\boxed{1}\boxed{R}\boxed{0}$K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω → 562 x 10^1 → 5621 .... RN1/4PC$\boxed{5}\boxed{6}\boxed{2}\boxed{1}$F

• LIST OF ASSEMBLIES

Mark	Symbol and Description	PDP-R05U/ KUC	PRO-R05U/ KUC
NSP	1..MR AV BOARD ASSY	AWV2162	AWV2163
	2..AV BOARD ASSY	AWZ6978	AWZ6979
	2..MDR ASSY	AWZ6922	AWZ6922
	2..SR ASSY	AWZ6923	AWZ6923
	2..SW ASSY	AWZ6977	AWZ6977
NSP	1..MR FUKUGOU BOARD ASSY	AWV2126	AWV2129
	2..FRONT ASSY	AWZ6924	AWZ6928
	2..LED ASSY	AWZ6925	AWZ6925
NSP	1..MR MAIN BOARD ASSY	AWV2127	AWV2127
	2..MAIN BOARD ASSY	AWZ6926	AWZ6926
	1..TUNER BOARD ASSY	AWE1300	AWE1300
⚠	1..POWER SUPPLY UNIT	AXY1091	AXY1091

• CONTRAST OF PCB ASSEMBLIES

B AV BOARD ASSY

AWZ6978 and AWZ6979 are constructed the same except for the following:

Mark	Symbol and Description	AWZ6978	AWZ6979
	R8652	RS1/16S102J	Not used
	R8659	RS1/16S0R0J	Not used
	R8660	Not used	RS1/16S0R0J
	JA7701 6P PIN JACK	AKB1297	AKB1298
	JA7702 4P PIN JACK	AKB1313	AKB1302
	JA7703 PINJACK+MINI DIN 4P	AKB1314	AKB1309
	JA7704 6P PIN JACK	AKB1295	AKB1312
	JA7705 2P 4 PIN MINI DIN (S)	AKP1234	AKP1235

G FRONT ASSY

AWZ6924 and AWZ6928 are constructed the same except for the following:

Mark	Symbol and Description	AWZ6924	AWZ6928
	R9658	RS1/16S0R0J	Not used
	R9659	Not used	RS1/16S0R0J
	JA9501 4P PIN JACK	AKB1303	AKB1304
	JA9502 4P MINI DIN (S)	AKP1238	AKP1239
	JA9504 3P PIN JACK	AKB1305	AKB1306

• PCB PARTS LIST (PDP-R05U)

A MR MAIN BOARD ASSY

[GCR BLOCK]

RESISTORS

Mark	No. Description	Part No.
	R6011-R6016,R6021,R6041,R6043	RS1/16S0R0J
	R6045	RS1/16S0R0J

[MICHEL MAIN BLOCK]

SEMICONDUCTORS

Mark	No. Description	Part No.
	IC6107	PD0278A
	IC6101	TC7W126FU
	Q6108	2SA1586
	Q6101,Q6102	HN1A01FU
	Q6106,Q6107	HN1B04FU

COILS AND FILTERS

Mark	No. Description	Part No.
	F6101,F6103,F6105-F6107 EMI FILTER	CCG1162
	L6107	LCTAW220J2520
	L6101-L6104	LCYC6R8K2125

CAPACITORS

Mark	No. Description	Part No.
	C6102 (10/6.3)	ACG7046
	C6126,C6142,C6163,C6164	CCSRCH330J50
	C6171,C6172	CCSRCH330J50
	C6127,C6143	CCSRCH680J50
	C6182,C6186	CEHVKW101M6R3
	C6188	CEHVKW470M6R3
	C6151	CKSQYB225K10
	C6112,C6114	CKSRYB102K50
	C6119,C6136,C6153,C6154	CKSRYB104K16
	C6168,C6169,C6177,C6185	CKSRYB104K16
	C6101,C6155,C6175,C6190	CKSRYB105K6R3
	C6103,C6104,C6107-C6111,C6113	CKSSYF104Z16
	C6116,C6123-C6125,C6130-C6133	CKSSYF104Z16
	C6140,C6141,C6146-C6148,C6150	CKSSYF104Z16
	C6152,C6160-C6162,C6165-C6167	CKSSYF104Z16
	C6170,C6176,C6178-C6181	CKSSYF104Z16

RESISTORS

Mark	No. Description	Part No.
	R6101,R6104-R6106,R6120	RAB4CQ100J
	R6124,R6125	RAB4CQ100J
	R6136,R6137,R6142-R6145	RS1/16S0R0J
	R6194-R6196	RS1/16S1000F
	R6115,R6131	RS1/16S100J
	R6197,R6207	RS1/16S103J
	R6147	RS1/16S1301F
	R6198,R6208	RS1/16S183J
	R6113,R6129	RS1/16S221J
	R6126,R6138	RS1/16S2701F
	R6112,R6123,R6128,R6141,R6165	RS1/16S271J
	R6175	RS1/16S271J
	R6170,R6171,R6174,R6176	RS1/16S331J
	R6169,R6172,R6189	RS1/16S471J
	R6122,R6140	RS1/16S473J
	R6167,R6168	RS1/16S8201F
	Other Resistors	RS1/16SS###J

OTHERS

Mark	No. Description	Part No.
	X6101 CRYSTAL OSCILLATOR (27MHz)	ASS1175

SEMICONDUCTORS

Mark	No. Description	Part No.
	IC6106	HY57V161610ETP-8
	Q6104,Q6105,Q6109	2SA1586
	Q6103	RN1303

COILS AND FILTERS

Mark	No. Description	Part No.
	F6104	CCG1162

CAPACITORS

Mark	No. Description	Part No.
	C6266,C6267	CCSRCH470J50
	C6184	CEHVKW101M6R3
	C6149,C6156-C6159,C6173,C6174	CKSSYF104Z16
	C6183,C6187,C6189	CKSSYF104Z16

RESISTORS

Mark	No. Description	Part No.
	R6132-R6134	RAB4CQ103J
	R6146,R6159,R6163,R6166,R6178	RAB4CQ330J
	R6180,R6184	RAB4CQ330J
	Other Resistors	RS1/16SS###J

[MICHEL SUB BLOCK]

SEMICONDUCTORS

Mark	No. Description	Part No.
	IC6255	PD0278A
	Q6258	2SA1586
	Q6251,Q6252	HN1A01FU
	Q6256,Q6257	HN1B04FU

COILS AND FILTERS

Mark	No. Description	Part No.
	F6251-F6254 EMI FILTER	CCG1162
	L6257	LCTAW220J2520
	L6251-L6254	LCYC6R8K2125

CAPACITORS

Mark	No. Description	Part No.
	C6272,C6288,C6305,C6306	CCSRCH330J50
	C6312,C6313	CCSRCH330J50
	C6273,C6289	CCSRCH680J50
	C6251,C6321	CEHVKW101M6R3
	C6327	CEHVKW470M6R3
	C6297	CKSQYB225K10
	C6258,C6260	CKSRYB102K50
	C6265,C6282,C6299,C6300	CKSRYB104K16
	C6309,C6310,C6316,C6324	CKSRYB104K16
	C6264,C6295,C6301,C6314	CKSRYB105K6R3
	C6253-C6257,C6259,C6262	CKSSYF104Z16
	C6269-C6271,C6276-C6279	CKSSYF104Z16
	C6286,C6287,C6292-C6294,C6296	CKSSYF104Z16
	C6298,C6302-C6304,C6307,C6308	CKSSYF104Z16
	C6311,C6315,C6317-C6320,C6331	CKSSYF104Z16

RESISTORS

Mark	No. Description	Part No.
	R6251-R6254,R6271,R6275,R6276	RAB4CQ100J
	R6329-R6331	RAB4CQ103J
	R6256-R6261	RS1/16S0R0J
	R6321-R6323	RS1/16S1000F
	R6266,R6283	RS1/16S100J
	R6326,R6336	RS1/16S103J
	R6291	RS1/16S1301F
	R6327,R6337	RS1/16S183J
	R6264,R6281	RS1/16S221J
	R6277,R6288	RS1/16S2701F
	R6263,R6274,R6280,R6290,R6305	RS1/16S271J
	R6314	RS1/16S271J
	R6309,R6310,R6313,R6315	RS1/16S331J

Mark	No.	Description	Part No.
	R6308,R6311,R6335		RS1/16S471J
	R6273,R6289		RS1/16S473J
	R6306,R6307		RS1/16S8201F
	Other Resistors		RS1/16SS###J

[AD MAIN BLOCK]

SEMICONDUCTORS

	IC6402		AD80058
	IC6404		BA7078AF
	IC6401		SM5301BS
	IC6405,IC6408		TC74VHC126FT
	Q6405		HN1B04FU
	Q6401		RN1303

COILS AND FILTERS

	F6401-F6404	EMI FILTER	CCG1162

CAPACITORS

	C6422,C6441 (10/6.3)		ACG7046
	C6445		CCSRCH151J50
	C6438		CKSRYB103K50
	C6404,C6424		CKSRYB104K16
	C6408,C6411,C6412,C6421,C6431		CKSRYB105K6R3
	C6434,C6435		CKSRYB105K6R3
	C6409,C6414,C6423		CKSRYB473K16
	C6443		CKSRYB474K10
	C6442		CKSRYB562K50
	C6402		CKSRYB822K50
	C6401		CKSRYB823K16
	C6403,C6405-C6407,C6410,C6413		CKSSYF104Z16
	C6415-C6420,C6425-C6429		CKSSYF104Z16
	C6439,C6440,C6444,C6448		CKSSYF104Z16

RESISTORS

	R6482,R6489		RAB4CQ101J
	R6405,R6410,R6418,R6424		RAB4CQ330J
	R6438,R6439		RAB4CQ330J
	R6420,R6431-R6436		RS1/16S0R0J
	R6404,R6408,R6409,R6416,R6417		RS1/16S1000F
	R6423		RS1/16S1000F
	R6406		RS1/16S104J
	R6422		RS1/16S1101F
	R6478		RS1/16S153J
	R6472		RS1/16S221J
	R6479		RS1/16S222J
	R6414		RS1/16S224J
	R6401		RS1/16S2701F
	R6413		RS1/16S472J
	R6465		RS1/16S682J
	Other Resistors		RS1/16SS###J

SEMICONDUCTORS

	IC6406		MM1389XFBE

CAPACITORS

	C6450-C6455		CKSRYB105K6R3
	C6437		CKSSYF104Z16

RESISTORS

	All Resistors		RS1/16SS###J

Mark	No.	Description	Part No.

[AD SUB BLOCK]

SEMICONDUCTORS

	IC6602		AD80058
	IC6604		BA7078AF
	IC6601		SM5301BS
	IC6603,IC6607		TC74VHC126FT
	Q6605		HN1B04FU
	Q6601		RN1303

COILS AND FILTERS

	F6601-F6604	EMI FILTER	CCG1162

CAPACITORS

	C6622,C6640 (10/6.3)		ACG7046
	C6644		CCSRCH151J50
	C6638		CKSRYB103K50
	C6604,C6624		CKSRYB104K16
	C6608,C6611,C6612,C6621,C6631		CKSRYB105K6R3
	C6633,C6634		CKSRYB105K6R3
	C6609,C6614,C6623		CKSRYB473K16
	C6642		CKSRYB474K10
	C6641		CKSRYB562K50
	C6602		CKSRYB822K50
	C6601		CKSRYB823K16
	C6603,C6605-C6607,C6610,C6613		CKSSYF104Z16
	C6615-C6620,C6625-C6629,C6639		CKSSYF104Z16
	C6643,C6645,C6647		CKSSYF104Z16

RESISTORS

	R6681,R6685		RAB4CQ101J
	R6608,R6613,R6621,R6627		RAB4CQ330J
	R6643,R6644		RAB4CQ330J
	R6628,R6636-R6641		RS1/16S0R0J
	R6607,R6611,R6612,R6619,R6620		RS1/16S1000F
	R6626		RS1/16S1000F
	R6609		RS1/16S104J
	R6625		RS1/16S1101F
	R6679		RS1/16S153J
	R6673		RS1/16S221J
	R6680		RS1/16S222J
	R6617		RS1/16S224J
	R6601		RS1/16S2701F
	R6610		RS1/16S472J
	R6666		RS1/16S682J
	Other Resistors		RS1/16SS###J

[HDMI RX BLOCK]

SEMICONDUCTORS

	IC6880		BR24L02FJ-W
	IC6803		PCM1742KE
	IC6881		SII9993CTG100
	IC6806		TC74HC4538AFT
	Q6888,Q6889		2SA1586
	Q6885,Q6886		2SC4116
	Q6884,Q6887		RN1303
	Q6881		RN1902
	Q6882		RN2303
	Q6880		SM6K2
	D6880,D6881		1SS302
	D6808		1SS355

Mark	No. Description	Part No.
	D6806,D6807,D6884	DAN202U
	D6883	UDZS6R8(B)
	COILS AND FILTERS	
	F6881 EMI FILTER	CCG1162
	CAPACITORS	
	C6802,C6849,C6851 (10/6.3)	ACG7046
	C6880,C6882,C6884,C6886	CCSRCH101J50
	C6888,C6889,C6892,C6895,C6896	CCSRCH101J50
	C6899-C6902,C6905,C6906,C6915	CCSRCH101J50
	C6917	CCSRCH101J50
	C6927,C6928	CCSRCH221J50
	C6921,C6922	CEHVKW101M6R3
	C6911	CEHVKW220M6R3
	C6913	CKSRYB104K16
	C6920	CKSRYB473K16
	C6831,C6848,C6856,C6857,C6881	CKSSYF104Z16
	C6883,C6885,C6887,C6890,C6891	CKSSYF104Z16
	C6893,C6894,C6897,C6898	CKSSYF104Z16
	C6903,C6904,C6907-C6910,C6912	CKSSYF104Z16
	C6916,C6923-C6926	CKSSYF104Z16
	C6854,C6855 (10uF/16V)	DCH1165
	RESISTORS	
	R6881-R6883,R6885,R6892,R6896	RAB4CQ101J
	R6901,R6904	RAB4CQ101J
	R6859	RS1/16S0R0J
	R6939,R6940	RS1/16S104J
	R6832,R6833	RS1/16S222J
	R6889	RS1/16S3900F
	R6915	RS1/16S3901F
	R6872	RS1/16S473J
	Other Resistors	RS1/16SS###J
	OTHERS	
	JA6881 HDMI CONNECTOR	AKP1232
	SEMICONDUCTORS	
	IC6804	BR24L02FJ-W
	IC6801	SII9993CTG100
	IC6802	TC74VHC157FT
	Q6801	RN1902
	Q6802	SM6K2
	D6801,D6802	1SS302
	D6804	DAN202U
	D6803	UDZS6R8(B)
	COILS AND FILTERS	
	F6801 EMI FILTER	CCG1162
	CAPACITORS	
	C6845,C6847,C6850 (10/6.3)	ACG7046
	C6801,C6806,C6808,C6810	CCSRCH101J50
	C6813,C6814,C6817,C6818,C6820	CCSRCH101J50
	C6823,C6824,C6830,C6834,C6836	CCSRCH101J50
	C6839,C6841,C6844	CCSRCH101J50
	C6832	CEHVKW101M6R3
	C6805	CEHVKW220M6R3
	C6826	CKSRYB104K16
	C6846	CKSRYB473K16
	C6803,C6804,C6807,C6809	CKSSYF104Z16

Mark	No. Description	Part No.
	C6811,C6812,C6815,C6816,C6819	CKSSYF104Z16
	C6821,C6822,C6825,C6828,C6829	CKSSYF104Z16
	C6833,C6835,C6840,C6842,C6843	CKSSYF104Z16
	C6852	CKSSYF104Z16
	RESISTORS	
	R6825,R6849	RAB4CQ101J
	R6848	RAB4CQ220J
	R6803,R6805,R6812,R6814,R6821	RAB4CQ470J
	R6824	RAB4CQ470J
	R6817	RS1/16S3900F
	R6847	RS1/16S3901F
	R6860	RS1/16S473J
	Other Resistors	RS1/16SS###J
	OTHERS	
	JA6801 HDMI CONNECTOR	AKP1232
	CAPACITORS	
	C6853	CCSRCH470J50
	[ROZ BLOCK]	
	SEMICONDUCTORS	
	IC6951	PD6435A
	Q6951	RN1303
	CAPACITORS	
	C6959,C6960	CCSRCH150J50
	C6951	CEHVKW101M6R3
	C6952-C6954,C6956-C6958	CKSSYF104Z16
	C6961,C6962,C6964-C6968	CKSSYF104Z16
	RESISTORS	
	R6951-R6953,R6956-R6962,R6966	RAB4CQ100J
	R6968,R6972	RAB4CQ100J
	R6945,R6946,R6988	RAB4CQ103J
	Other Resistors	RS1/16SS###J
	OTHERS	
	X6951 CERAMIC RESONATOR	ASS1169
	RESISTORS	
	R6982-R6986,R6992	RAB4CQ101J
	Other Resistors	RS1/16SS###J
	OTHERS	
	CN6951 50P CONNECTER	AKM1201
	[CELIA BLOCK]	
	SEMICONDUCTORS	
	IC7001,IC7002	HY57V643220CT-7
	IC7004	PE5362A
	IC7003	TC74LCX125FT
	COILS AND FILTERS	
	F7001,F7002 EMI FILTER	CCG1162
	CAPACITORS	
	C7031 (10/6.3)	ACG7046
	C7029,C7041 (330uF/6.3V)	ACH1365
	C7064	CCSRCH100D50
	C7025,C7066,C7067	CCSRCH221J50
	C7001-C7024,C7026-C7028	CKSSYF104Z16
	C7032-C7040,C7042-C7063	CKSSYF104Z16

Mark	No. Description	Part No.

RESISTORS

	R7013-R7018,R7030	RAB4CQ220J
	R7007	RS1/16S220J
	Other Resistors	RS1/16SS###J

OTHERS

	X7001 CRYSTAL OSCILLATOR (85MHz)	ASS1174

[MIKE BLOCK]

SEMICONDUCTORS

	IC7152	MBM29PL3200BE70PFV
	IC7101	PD5855A

COILS AND FILTERS

	F7101,F7102 EMI FILTER	CCG1162

CAPACITORS

	C7103,C7120 (330uF/6.3V)	ACH1365
	C7101,C7102,C7104-C7119	CKSSYF104Z16
	C7121-C7135,C7152,C7158-C7162	CKSSYF104Z16

RESISTORS

	R7113,R7115,R7116,R7119,R7121	RAB4CQ101J
	R7123,R7124	RAB4CQ101J
	R7102,R7105-R7108,R7110,R7111	RAB4CQ330J
	Other Resistors	RS1/16SS###J

[MAIN UCOM BLOCK]

SEMICONDUCTORS

	IC7205	BR24L64F-W
	IC7207	MB91F355APMTGE1
	IC7201	MM1522XU
	IC7209	NJM12904V
	IC7211	PQ20WZ11
	IC7210	PST3612UR
	IC7203,IC7206	PST3628UR
	IC7202	TC74VHC125FT
	Q7203	2SA1586
	Q7201	2SJ461A
	Q7202	HN1C01FU
	Q7206,Q7207	RN1902
	D7201,D7202	1SS355
	D7203	SML-311UT
	D7204	UDZS2R7(B)

CAPACITORS

	C7244	CCSRCH100D50
	C7231	CCSRCH102J50
	C7243,C7245	CCSRCH221J50
	C7241,C7242,C7248,C7249	CCSRCH470J50
	C7213,C7218	CCSRCH7R0D50
	C7205	CEHVKW101M6R3
	C7201,C7217,C7236,C7239,C7252	CKSRYB103K50
	C7226,C7237	CKSRYB104K16
	C7216	CKSRYB472K50
	C7209-C7212,C7214,C7215,C7219	CKSSYF104Z16
	C7221-C7225,C7227-C7229	CKSSYF104Z16
	C7232-C7234,C7238,C7240	CKSSYF104Z16
	C7246,C7247,C7253 (10uF/16V)	DCH1165

RESISTORS

Mark	No. Description	Part No.
	R7221,R7229,R7241,R7248-R7250	RAB4CQ101J
	R7201	RAB4CQ472J
	R7244,R7245,R7275,R7286,R7287	RS1/16S0R0J
	R7290,R7295-R7306	RS1/16S0R0J
	R7269	RS1/16S101J
	R7278	RS1/16S2201F
	R7215	RS1/16S223J
	R7279	RS1/16S4700F
	R7227,R7260	RS1/16S473J
	R7224	RS1/16S682J
	R7280	RS1/16S7500F
	R7277	RS1/16S8201F
	Other Resistors	RS1/16SS###J

OTHERS

	CN7203 3P CONNECTOR	AKM1213
	CN7201 PLUG 8-P	AKM1225
	CN7202 3P PH CONNECTOR	AKM1274
	X7201 CERAMIC RESONATOR	ASS1170

SEMICONDUCTORS

	IC7204	TC74VHC125FT

CAPACITORS

	C7202,C7203,C7258,C7259	CCSRCH470J50
	C7220	CKSSYF104Z16

RESISTORS

	All Resistors	RS1/16SS###J

OTHERS

	CN7204 3P PH CONNECTOR	AKM1274

[MR IF BLOCK] [REGLATORBLOCK]

SEMICONDUCTORS

	IC7453	BA33BC0WFP
	IC7454	BA50BC0WFP
	IC7456	NCP1117DT15
	IC7401	SII170BCLG64
	IC7404	TC74VCX08FT
	IC7403	TC74VCX574FT
	IC7451	TC74VHC08FT
	Q7406	2SA1586
	Q7405	HN1C01FU
	Q7403,Q7407,Q7408	RN1303
	Q7451	RN1901
	Q7401	RN1902
	Q7402,Q7404,Q7409	RN2303
	D7401-D7407,D7457-D7459	1SS355

COILS AND FILTERS

	F7405-F7408 EMI FILTER	ATF1209
	L7401 (3.3uH)	ATH1162
	F7401-F7404 EMI FILTER	CCG1162

CAPACITORS

	C7416,C7421,C7424,C7484 (10/6.3)	ACG7046
	C7474 (330uF/6.3V)	ACH1365
	C7401,C7402	CCSRCH100D50
	C7475,C7477-C7482	CCSRCH221J50
	C7403,C7404,C7406,C7407	CCSRCH820J50
	C7410,C7411,C7413,C7414,C7419	CCSRCH820J50
	C7456,C7460,C7465	CEHVKW101M6R3
	C7405,C7412,C7415,C7417,C7418	CKSSYF104Z16

Mark No. Description	Part No.
C7420,C7423,C7451,C7452	CKSSYF104Z16
C7454,C7455,C7458,C7459,C7466	CKSSYF104Z16
C7469,C7473,C7476	CKSSYF104Z16
C7453,C7457 (10uF/16V)	DCH1165

RESISTORS

R7425,R7449,R7451,R7452,R7454	RAB4CQ101J
R7481,R7497-R7499	RAB4CQ101J
R7453	RAB4CQ103J
R7440,R7441,R7443	RS1/16S0R0J
R7417,R7418,R7429,R7431	RS1/16S111J
R7428,R7430	RS1/16S272J
R7410	RS1/16S5100F
R7456	RS1LMF1R5J
R7455	RS2LMF4R7J
Other Resistors	RS1/16SS###J

OTHERS

CN7454,CN7455 50P CONNECTER	AKM1201
CN7453 PLUG 15-P	AKM1232
CN7402 16P FFC CONNECTOR	AKM1234
CN7451 PH 15P CONNECTOR	AKM1301
CN7401 DVI SOCKET (24P)	AKP1250

SEMICONDUCTORS

IC7452	TC74VHC126FT

CAPACITORS

C7137,C7485,C7486	CCSRCH470J50
C7068,C7471	CKSSYF104Z16

RESISTORS

R7477	RAB4CQ101J
R7382	RS1/16S102J
Other Resistors	RS1/16SS###J

B AV BOARD ASSY

[TUNER BLOCK]

SEMICONDUCTORS

IC7503	CXA2064M
IC7502	TC74HC4066AFT
Q7503,Q7512,Q7520,Q7521	2SA1586
Q7501,Q7502,Q7504,Q7506	2SC4116
Q7508-Q7511,Q7519	2SC4116
Q7515	DTA124EUA
Q7505,Q7513,Q7516,Q7517	HN1B04FU
D7502	1SS355
D7501	UDZS30(B)

COILS AND FILTERS

F7501-F7504	VTF1080

CAPACITORS

C7527,C7529,C7533,C7535,C7536	ACG1122
C7550 (4.7uF/10V)	ACG1122
C7518,C7553 (10/6.3)	ACG7046
C7548 (100uF/16V)	ACH1394
C7530	ACH1417
C7528	ACH1418
C7501	CEHVKW100M50
C7508,C7509,C7544,C7545	CEHVKW101M6R3
C7502,C7520,C7524	CKSRYB102K50
C7516	CKSRYB103K50

Mark No. Description	Part No.
C7531,C7537	CKSRYB105K10
C7552	CKSRYB123K50
C7532	CKSRYB272K50
C7523,C7554	CKSRYB332K50
C7526	CKSRYB473K16
C7538	CKSRYB562K50
C7510,C7519,C7539,C7549	CKSRYF104Z50
C7534,C7551,C7557,C7558 (10uF/16V)	DCH1165

RESISTORS

R7502	ACN1199
R7545,R7546	RS1/16S1002F
R7559	RS1/16S6802F
VR7505 (470)	CCP1388
VR7503 (4.7K)	CCP1394
VR7502,VR7504,VR7506 (10k)	CCP1396
Other Resistors	RS1/16S###J

OTHERS

U7501 TV FRONTEND SYSTEM UNIT	AXF1130
U7502 TV FRONTEND	AXF1132

[AV IO BLOCK]

SEMICONDUCTORS

IC7801	SP3232ECY
IC7803	TC74VHC00FT
IC7802	TC74VHC125FT
Q7705,Q7706,Q7716,Q7801,Q7804	2SA1586
Q7807	2SA1586
Q7708,Q7709,Q7711,Q7713-Q7715	2SC4116
Q7805	2SC4116
Q7702,Q7703	2SC5233
Q7701,Q7718	DTA124EUA
Q7704,Q7802,Q7803,Q7806,Q7808	DTC124EUA
Q7707,Q7710,Q7712	HN1A01FU
D7701	1SS301
D7702-D7707,D7710-D7712	1SS302
D7708,D7807-D7810	1SS355
D7713-D7718	UDZS9R1(B)

CAPACITORS

C7718,C7725,C7747	ACH1419
C7806,C7809	CEHVKW100M16
C7702,C7707,C7711,C7739,C7741	CKSRYB103K50
C7744-C7746	CKSRYB103K50
C7701,C7703-C7705,C7709	CKSRYB105K10
C7715-C7717,C7723,C7724,C7730	CKSRYB105K10
C7732,C7740,C7752-C7754	CKSRYB105K10
C7706,C7743	CKSRYB473K16
C7713,C7721,C7726,C7801-C7805	CKSRYF104Z50
C7807,C7808	CKSRYF104Z50
C7708,C7710,C7712,C7714	DCH1165
C7719,C7720,C7727,C7731,C7733	DCH1165
C7737,C7738,C7742,C7749-C7751 (10uF/16V)	DCH1165

RESISTORS

R7711,R7719,R7735,R7736	RS1/10S151J
R7744,R7745	RS1/10S151J
R7813	RS1/10S680J
R7703,R7704,R7727,R7757,R7758	RS1/16S75R0F
R7761-R7763,R7766,R7769-R7771	RS1/16S75R0F

Mark No. Description	Part No.
Other Resistors	RS1/16S###J

OTHERS

JA7704 6P PIN JACK	AKB1295
JA7701 6P PIN JACK	AKB1297
JA7702 4P PIN JACK	AKB1313
JA7703 PINJACK+MINI DIN 4P	AKB1314
CN7801 12P FFC CONNECTOR	AKM1233
JA7705 2P 4PIN MINIDIN(S)	AKP1234
JA7801 9P D-SUB SOCKET	AKP1240

[AV SW BLOCK]

SEMICONDUCTORS

IC8005	AN15852A
IC8002	CXA2069Q
IC8004	NJM12904V
IC8003	TC4052BFT
IC8001	TC7WH123FU
Q8005,Q8006,Q8013,Q8014	2SA1586
Q8001,Q8002,Q8007-Q8010,Q8012	2SC4116
Q8016,Q8019,Q8020	2SC4116
Q8015	2SK209
Q8003,Q8018	DTA124EUA
Q8004,Q8017	DTC124EUA
Q8011	HN1C01FU
D8002	1SS301
D8001,D8015,D8016	1SS355

CAPACITORS

C8051 (10/6.3)	ACG7046
C8012,C8056 (100uF/16V)	ACH1394
C8022,C8027	CCSRCH181J50
C8019,C8038	CCSRCH681J50
C8040,C8041	CEHVKW100M16
C8002-C8004,C8008,C8009,C8016	CKSRYB105K10
C8050	CKSRYB105K10
C8001,C8005-C8007,C8010,C8013	CKSRYF104Z50
C8015,C8025,C8026,C8031-C8036	CKSRYF104Z50
C8039,C8042-C8044,C8048,C8049	CKSRYF104Z50
C8052,C8053,C8055,C8059	CKSRYF104Z50
C8011,C8014,C8017,C8018	DCH1165
C8023,C8024,C8028,C8037	DCH1165
C8045,C8046,C8061 (10uF/16V)	DCH1165

RESISTORS

All Resistors	RS1/16S###J

[AV REG BLOCK]

SEMICONDUCTORS

IC8505	BA50BC0WFP
IC8504	BA90BC0WFP
IC8506	BD6522F
IC8503	M5291FP
IC8502	NCP1117ST33
Q8501,Q8502,Q8504	2SC4116
Q8503	DTA124EUA
Q8511	TPC6104
D8503,D8505,D8508,D8512	1SS355
D8509	D1FL20U(S)
D8502	UDZS30(B)
D8501	UDZS5R6(B)

COILS AND FILTERS

L8502 INDUCTOR	ATH1182
F8502-F8506 EMI FILTER	CCG1162

CAPACITORS

C8508,C8521,C8523,C8529,C8531	ACG7046
C8533 (10/6.3)	ACG7046
C8505,C8512 (100uF/16V)	ACH1394
C8520 (47uF/50V)	ACH1403
C8519	CCSRCH221J50
C8514	CCSRCH821J50
C8500,C8540,C8542	CEHAZL471M16
C8503,C8526,C8554	CEHVKW100M16
C8501	CEHVKW100M35
C8507,C8527	CEHVKW100M50
C8517	CEHVKW101M6R3
C8506,C8510,C8515,C8522,C8552	CEHVKW220M16
C8502,C8504,C8511,C8513,C8516	CKSRYB103K50
C8518,C8524,C8525,C8551,C8553	CKSRYB103K50
C8509,C8541,C8543 (10uF/16V)	DCH1165

RESISTORS

R8511	ACN1164
R8506,R8507,R8513,R8514	ACN1188
R8543,R8544,R8547,R8548	ACN1188
R8502,R8531	ACN1199
R8503	RD1/2LMF100J
R8501	RD1/2LMF391J
R8512	RS1/16S1101F
R8523	RS1/16S3302F
R8508	RS1LMF8R2J
R8536	RS1LMFR56J
R8524	RS2LMF3R3J
Other Resistors	RS1/16S###J

OTHERS

CN8504 PLUG(15P)	KM200NA15
U8502, U8503 DD CON UNIT	AXY1088
U8504 DD CON UNIT	AXY1089

[BOARD IF BLOCK]

CAPACITORS

C8651,C8652	CCSRCH181J50

RESISTORS

All Resistors	RS1/16S###J

OTHERS

CN8651-CN8653 50P CONNECTER	AKM1201
CN8657 40P CONNECTER	AKM1303

[UIF UCOM BLOCK]

SEMICONDUCTORS

IC8705	BR24L01AFJ-W
IC8702	HD64F3687FP
IC8703	PST9231N
IC8701	TC74VHC08FT
IC8704	TC7W126FU
Q8702	DTC124EUA

CAPACITORS

Mark No. Description	Part No.
C8706,C8707	CCSRCH120J50
C8714,C8715	CCSRCH470J50
C8716	CEHVKW101M6R3
C8709	CKSRYB472K50
C8701-C8705,C8708,C8711-C8713	CKSRYF104Z50

RESISTORS

R8719	RAB4C101J
R8702,R8704,R8720,R8745	RAB4C103J
Other Resistors	RS1/16S###J

OTHERS

CN8701 PLUG 8-P	AKM1225
CN8702 3P PH CONNECTOR	AKM1274
X8702 CERAMIC RESONATOR	ASS1168
X8701 CERAMIC RESONATOR (32.768kHz)	ASS1172

[CCD BLOCK]

SEMICONDUCTORS

IC8904	FMS6410CS
IC8903	PD5910A
IC8906	PST3628UR
Q8902-Q8904,Q8923,Q8924	2SA1586

CAPACITORS

C8913,C8916 (2.2uF/16V)	ACG1109
C8912,C8915	CCSRCH221J50
C8920,C8921	CCSRCH5R0C50
C8904,C8907	CCSRCH681J50
C8944	CCSRCK2R0C50
C8910,C8919	CEHVKW100M16
C8911,C8914,C8931	CKSRYB102K50
C8930	CKSRYB103K50
C8935,C8936	CKSRYB105K10
C8945	CKSRYB153K50
C8929	CKSRYB683K16
C8901,C8903,C8906,C8909	CKSRYF104Z50
C8917,C8918,C8925,C8937	CKSRYF104Z50

RESISTORS

R8932	RAB4C101J
R8907-R8916,R8918,R8923,R8930	RAB4C473J
R8948,R8949,R8951	RAB4C473J
Other Resistors	RS1/16S###J

OTHERS

X8901 CERAMIC RESONATOR (16MHz)	ASS1159

E MDR ASSY

SEMICONDUCTORS

IC9301,IC9302	TC74VHC08FT
Q9301,Q9302	2SC4116
Q9303	DTA124EUA

CAPACITORS

C9304	CCSRCH101J50
C9301,C9305-C9308	CCSRCH471J50
C9302,C9303	CKSRYF104Z50

RESISTORS

All Resistors	RS1/16S###J

OTHERS

Mark No. Description	Part No.
CN9301 SOCKET (20P)	AKP1226
CN9302 CONNECTOR	CKS3830

F SR ASSY

OTHERS

JA9453 MINI JACK(4P)	AKN1073
CN9452 CONNECTOR	CKS3826
JA9451,JA9452 JACK	RKN1004
9453 SCREW TERMINAL	VNE1949

G FRONT ASSY

SEMICONDUCTORS

IC9501	BR24C21FJ
IC9502	TC74VHC08FT
Q9503-Q9508	2SC4116
Q9501,Q9502	DTC124EUA
D9503	1SS301
D9506-D9508,D9514-D9516	1SS302
D9501,D9502,D9504,D9505	UDZS5R6(B)
D9509-D9511,D9517,D9518	UDZS9R1(B)

CAPACITORS

C9517,C9518	CCSRCH220J50
C9520-C9522,C9526-C9528	CEHVKW470M6R3
C9505,C9506,C9531-C9533	CKSRYB103K50
C9504,C9514	CKSRYB104K16
C9507-C9512	CKSRYB105K10
C9503	CKSRYB473K16
C9516,C9519,C9537,C9629	CKSRYF104Z16
C9513,C9515,C9523,C9534-C9536	DCH1165
C9538-C9540	DCH1165

RESISTORS

R9504,R9507,R9508,R9534-R9536	RS1/16S75R0F
R9543-R9545	RS1/16S75R0F
Other Resistors	RS1/16S###J

OTHERS

JA9501 PIN JACK(3P)	AKB1303
JA9504 PIN JACK(3P)	AKB1305
CN9502 50P CONNECTER	AKM1201
JA9502 4P MINIDIN SOCKET(S)	AKP1238
JA9505 15P D-SUB SOCKET	AKP1241
JA9503 JACK	RKN1026

H LED ASSY

SEMICONDUCTORS

Q9651	DTA124EUA
Q9653	HN1C01FU
Q9652	RN2902
D9652	SML-310DT
D9654	SML-310MT
D9653	SML-311UT
D9655	SML-521MDW

CAPACITORS

C9651	CKSRYB103K50

RESISTORS

All Resistors	RS1/16S###J

OTHERS

Mark	No. Description	Part No.
	CN9651 7P PH CONNECTOR	AKM1293

I TUNER BOARD ASSY

OTHERS

Mark	No. Description	Part No.
	1 SCREW	ABZ30P060FTC
	10 WIND REFLECTOR 2	AEC2011
⚠	90 GASKET C	AEC2014
	2 WIND REFLECTOR	AEC7521
⚠	5 GASKET A	AEC7528
⚠	6 GASKET B	AEC7529
	1 CASE TOP	ANG2659
⚠	4 PCMCIA EJECTOR	ANG2673
⚠	8 GROUND PLATE A	ANG2698
⚠	9 GROUND PLATE B	ANG2699
	7 TOP COVER	ANG2706
	3, 5 SCREW	BBZ30P080FTC
	1 RIVET A	BEC1158
	4 SCREW	PMZ20P080FTC
	6 SCREW	VMZ30P060FTC

[I/O POWER BLOCK]

SEMICONDUCTORS

Mark	No. Description	Part No.
	IC1012	24LC256T(I)SNG
	IC1015	BA00BC0WFP
	IC1021	CY2305SC-1H
	IC1022	KA5SDKAS01TSN
	IC1007,IC1016	MM1562FF
	IC1006	MM1563DF
	IC1004,IC1005,IC1023	MM1565AF
	IC1008,IC1009	NJM2370U09
	IC1010	PST3622NR
	IC1013,IC1014	R1224N102H
	IC1019	S-L2980A15MC-C6A
	IC1011	TC7S08FU
	Q1006,Q1012	2SA1576A
	Q1008,Q1009	CPH5802
	Q1005	DTC124EUA
	Q1001,Q1010,Q1011,Q1013	RN1901
	Q1003	UMD2N
	D1001	1SS355
	D1003-D1009,D1014,D1019	RB501V-40

COILS AND FILTERS

Mark	No. Description	Part No.
	L1003,L1004	ATH1161
	L1008,L1010 CHIP BEEDS FILTER	BTX1039
	L1005-L1007,L1009,L1011-L1018 CHIP BEEDS FILTER	BTX1042
	F1001,F1002 FERRITE CORE	VTF1084

CAPACITORS

Mark	No. Description	Part No.
	C1049,C1051,C1090	BCG1054
	C1078	BCG1059
	C1048	CCSRCH102J50
	C1019-C1022,C1057,C1089	CCSRCH471J50
	C1008	CEHVKW100M50
	C1001,C1010,C1054-C1056,C1060	CEHVKW101M6R3
	C1064	CEHVKW101M6R3
	C1009,C1014,C1015,C1034,C1035	CEHVKW470M16
	C1053,C1070	CEHVKW470M16

Mark	No. Description	Part No.
	C1032,C1039-C1041,C1061,C1076	CKSQYB225K10
	C1088	CKSQYB225K10
	C1036	CKSRYB103K50
	C1027-C1029,C1031,C1042,C1045	CKSRYF105Z10
	C1059,C1075,C1087	CKSRYF105Z10
	C1002,C1012,C1013,C1016,C1017	CKSSYB103K16
	C1026,C1030,C1037,C1038	CKSSYB103K16
	C1043,C1044,C1050,C1058,C1062	CKSSYB103K16
	C1065,C1069,C1074,C1085,C1086	CKSSYB103K16
	C1018,C1023-C1025,C1046,C1047	CKSSYF104Z16
	C1052,C1084,C1091	CKSSYF104Z16

RESISTORS

Mark	No. Description	Part No.
	R1073,R1074	RS1/10S271J
	R1035	RS1/16SS1103F
	R1039	RS1/16SS1202F
	R1043	RS1/16SS1503F
	R1019	RS1/16SS2202F
	R1032	RS1/16SS5102F
	R1021	RS1/16SS5602F
	R1041	RS1/16SS9102F
	R1069,R1070	RS1/16S470J
	R1080,R1081,R1109	RS1/4S1R5J
	R1015,R1042	RS1/4S3R3J
	Other Resistors	RS1/16SS###J

OTHERS

Mark	No. Description	Part No.
	CN1001 40P CONNECTER	AKM1217
	CN1002 12P PH CONNECTOR	AKM1298
	CN1003 14P PH CONNECTOR	AKM1300
	X1001 CRYSTAL RESONATOR (27.0000MHz)	BSS1123

[FRONT END BLOCK]

SEMICONDUCTORS

Mark	No. Description	Part No.
	IC1502	BA10358F
	IC2002	BCM3510KPFG
	IC1501	TC7W66FU
	IC1503	UPC1663GV
	IC4503	UPC3220GR
	Q1503-Q1505	2SC5084
	Q1501	RN1901
	D1501,D1502	1SS312

COILS AND FILTERS

Mark	No. Description	Part No.
	F4502 SAW FILTER	ATF1215
	F1501,F1502 SAW FILTER	BTF1079
	L1504,L1505 CHIP COIL	BTH1121
	L4564	LCTAW1R5J2520
	L4565	LCYA10NJ2520
	L4503	LCYA56NJ2520
	L4502,L4505	LCYA68NJ2520
	L4501,L4509	LCYA82NJ2520
	L4507	LCYAR10J2520
	L1501	LCYAR68J2520
	F1504-F1507,F1510,F1511,F1514	VTF1084
	F2001-F2004,F4504 FERRITE CORE	VTF1084

CAPACITORS

Mark	No. Description	Part No.
	C1505,C1521	ACH1421
	C1501,C1509,C2001,C2002,C2015	BCG1054
	C2018,C2019,C2038,C2039	BCG1054
	C4505	CCSRCH271J50

Mark	No. Description	Part No.
	C4504	CCSSCH100D50
	C4501,C4513,C4534	CCSSCH101J50
	C4511	CCSSCH120J50
	C2033,C2040	CCSSCH220J50
	C4502,C4503,C4509	CCSSCH270J50
	C4515,C4517	CCSSCH390J50
	C4507	CCSSCH560J50
	C1516,C1531,C1536	CEHVKW100M16
	C1508	CEHVKW100M50
	C1510	CEHVKW101M25
	C1507	CKSRYB103K50
	C1503,C4518,C4524,C4528	CKSSYB102K50
	C4532,C4533,C4535	CKSSYB102K50
	C1502,C1504,C1506,C1511,C1512	CKSSYB103K16
	C1514,C1517,C1519,C1522-C1526	CKSSYB103K16
	C1528-C1530,C1534,C1537-C1548	CKSSYB103K16
	C1552,C2003-C2014,C2016,C2017	CKSSYB103K16
	C2020-C2032,C2035-C2037,C4520	CKSSYB103K16
	C4525,C4530,C4544,C4546,C4547	CKSSYB103K16
	C4551-C4553	CKSSYB103K16
	C1515,C1518,C1533	CKSSYB104K10
	C1513,C1535	CKSSYF104Z16

RESISTORS

Mark	No. Description	Part No.
	R1548	RS1/16SS1001F
	R1557	RS1/16SS2201F
	R2036	RS1/16S0R0J
	Other Resistors	RS1/16SS###J

OTHERS

Mark	No. Description	Part No.
	X2001 CRYSTAL RESONATOR (26.800MHz)	ASS1186
⚠	M1501 TUNER MODULE	AXF1125

[POD BLOCK]

SEMICONDUCTORS

Mark	No. Description	Part No.
	IC2501	109865-PBF
	IC2502	TC74LCX244FT
	IC2504	TC74LCX245FT
	IC2503	TC74LCX257FT
	IC2505,IC2506	TC74LCX373FT

CAPACITORS

Mark	No. Description	Part No.
	C2510	CCSSCH680J50
	C2502-C2509	CKSSYF104Z16

RESISTORS

Mark	No. Description	Part No.
	R2259,R2503,R2507,R2511-R2513	BCN1067
	R2510,R2521,R2559	RAB4C103J
	R2535,R2546,R2552,R2553	RAB4C470J
	Other Resistors	RS1/16SS###J

OTHERS

Mark	No. Description	Part No.
	CN2501 PCMCIA CONNECTOR	AKP1259

[SYSTEM IC BLOCK]

SEMICONDUCTORS

Mark	No. Description	Part No.
	IC5501	BCM7021RKPB1G-D0
	IC3001	BCM7115A3KPBG
	IC5502	CY22381FSZC-147
	IC5201	PE5434A
	IC3003,IC3004	TC7SA08FU

Mark	No. Description	Part No.
	D5201	RB501V-40

COILS AND FILTERS

Mark	No. Description	Part No.
	F3014 CHIP FERRITE BEADS	ATF1212
	F3003,F3004,F3006-F3008	VTF1084
	F3010-F3013,F3015,F5501-F5504	VTF1084
	F5506,F5507 FERRITE CORE	VTF1084

CAPACITORS

Mark	No. Description	Part No.
	C3035,C3036,C5532	BCG1054
	C5502 CERAMIC CAPACITOR	BCG1059
	C3105	CCSSCH220J50
	C3095,C3096	CCSSCH5R0C50
	C3103	CEHVKW100M16
	C5514	CEHVKW101M6R3
	C3016	CKSRYF105Z10
	C3085,C3093	CKSSYB102K50
	C3024,C3025,C3027,C3029	CKSSYB103K16
	C3033,C3034,C3038,C3053,C3058	CKSSYB103K16
	C3065,C3066,C3089,C3091	CKSSYB103K16
	C5201-C5212,C5501,C5503-C5513	CKSSYB103K16
	C5515-C5531,C5533-C5535	CKSSYB103K16
	C3001,C3002,C3004-C3010	CKSSYB104K10
	C3012-C3015,C3017,C3018	CKSSYB104K10
	C3020-C3023,C3026,C3028	CKSSYB104K10
	C3031,C3032,C3040,C3041	CKSSYB104K10
	C3043-C3045,C3047-C3049	CKSSYB104K10
	C3051,C3052,C3054-C3057,C3059	CKSSYB104K10
	C3061,C3064,C3067-C3070,C3072	CKSSYB104K10
	C3074-C3076,C3078,C3080,C3081	CKSSYB104K10
	C3084,C3086-C3088,C3090,C3092	CKSSYB104K10
	C3100,C3101,C3106	CKSSYB104K10

RESISTORS

Mark	No. Description	Part No.
	R3062-R3066	BCN1067
	R5003,R5007,R5501,R5526	BCN1072
	R3079	RAB4C102J
	R3048	RAB4C103J
	R3021,R5545,R5547,R5548	RAB4C330J
	R5507,R5522,R5524	RAB4C472J
	R5528,R5529,R5532	RAB4C560J
	R3036,R3037	RS1/16S1002F
	R5513	RS1/16S1371F
	R3117,R3118,R3121,R5017	RS1/16S220J
	R5585	RS1/16S3240F
	R3005,R3028	RS1/16S4021F
	Other Resistors	RS1/16SS###J

OTHERS

Mark	No. Description	Part No.
	X3001 CRYSTAL RESONATOR (25.000MHz)	ASS1185

[MEMORY BLOCK]

SEMICONDUCTORS

Mark	No. Description	Part No.
	IC6001-IC6004	IC42S16800-6TG
	IC3501,IC3505	K4H561638F-UCB3
	IC3503	PC28F128K3C115

COILS AND FILTERS

Mark	No. Description	Part No.
	F6001-F6004 CHIP FERRITE BEADS	ATF1212
	F6005-F6008 FERRITE CORE	VTF1084

CAPACITORS

Mark	No. Description	Part No.
	C3509	CEHVKW101M6R3
	C3502-C3508,C3510-C3515	CKSSYB103K16
	C3518,C3519,C3521-C3523	CKSSYB103K16
	C3526,C3527,C3529,C6001-C6028	CKSSYB103K16
	C3516,C3517,C3524,C3525	CKSSYB104K10

RESISTORS

Mark	No. Description	Part No.
	R3531	RAB4C103J
	R6001,R6006	RAB4C330J
	R3521,R3540	RS1/16S1210F
	Other Resistors	RS1/16SS###J

OTHERS

Mark	No. Description	Part No.
	CN3501 80P CONNECTOR RCPT	BKP1159

[AUDIO/VIDEO BLOCK]

SEMICONDUCTORS

Mark	No. Description	Part No.
	IC4007	AK5381VT
	IC4005	CY24216SC-1
	IC4001,IC4003,IC4006	NJM2068V
	IC8501	TC90A92AFG
	Q4001-Q4003,Q8502	2SA1576A
	Q8501	2SC4081

COILS AND FILTERS

Mark	No. Description	Part No.
	L4004,L4005 CHIP COIL	BTH1107
	L8508	LCTAW1R5J2520
	F4004-F4007,F8501,F8504-F8507	VTF1084
	F8509-F8511 FERRITE CORE	VTF1084

CAPACITORS

Mark	No. Description	Part No.
	C4003,C4018,C4078,C8503,C8519	BCG1054
	C8521-C8523,C8542,C8544	BCG1054
	C4019,C4079,C4085	BCG1059
	C8506	CCSRCH151J50
	C4001,C4002	CCSRCH391J50
	C4038,C4039	CCSRCH471J50
	C4036,C4037,C4070,C8550	CCSSCH101J50
	C8532	CCSSCH180J50
	C8528	CCSSCH220J50
	C4009,C4010	CCSSCH221J50
	C4004,C4005,C4007,C4008	CCSSCH390J50
	C8502	CCSSCH4R0C50
	C4011,C4012	CEHVKW470M16
	C4021,C4024	CKSQYB225K10
	C8524	CKSRYB152K50
	C8501	CKSRYB474K10
	C4015,C8531	CKSSYB102K50
	C4006,C4013,C4014,C4027,C4028	CKSSYB103K16
	C4040,C4059,C4083,C4084	CKSSYB103K16
	C8507-C8511,C8513-C8516,C8518	CKSSYB103K16
	C8527,C8529,C8530,C8533-C8540	CKSSYB103K16
	C8549,C8554	CKSSYB103K16
	C4025,C4029,C4073,C4080,C4081	CKSSYB104K10
	C8512,C8517,C8520,C8545-C8548	CKSSYB104K10
	C4067,C4068	CKSSYB821K50
	C4047,C4053,C4054,C4057,C4061	CKSSYF104Z16
	C4082	CKSSYF104Z16

RESISTORS

Mark	No. Description	Part No.
	R8511	BCN1070
	R4025,R4026	RS1/16SS1002F
	R4013,R4014,R4048,R4049	RS1/16SS2402F
	R4052,R4053	RS1/16SS2402F
	R8509	RS1/16S220J
	Other Resistors	RS1/16SS###J

OTHERS

Mark	No. Description	Part No.
	X8501 CRYSTAL RESONATOR (42MHz)	ASS1184
	JA4001 OPTICAL OUT MOD.	GP1FM513TZ

[DIGITAL VIDEO BLOCK]

SEMICONDUCTORS

Mark	No. Description	Part No.
	IC7501	PE5436A
	IC7503-IC7505	TC74LCX541FT

COILS AND FILTERS

Mark	No. Description	Part No.
	F7501-F7504 FERRITE CORE	VTF1084

CAPACITORS

Mark	No. Description	Part No.
	C7507	BCG1054
	C7501-C7506,C7508,C7510,C7511	CKSSYB104K10

RESISTORS

Mark	No. Description	Part No.
	R7540,R7541	BCN1067
	R7518	RAB4C0R0J
	R7547-R7550	RS1/16S470J
	Other Resistors	RS1/16SS###J

OTHERS

Mark	No. Description	Part No.
	CN7501 50P CONNECTER	AKM1236

[IEEE1394 BLOCK]

SEMICONDUCTORS

Mark	No. Description	Part No.
	IC8004	PST3622NR
	IC8003	TC74LCX125FT
	IC8005	TC7S08FU
	IC8006	TC7SA08FU
	IC8001	TSB43CA42ZGW
	Q8001	DTC124EUA

COILS AND FILTERS

Mark	No. Description	Part No.
	L8001-L8004 CHOKE COIL	ATH1160
	F8001,F8002 EMI FILTER	DTL1106
	F8003 FERRITE CORE	VTF1084

CAPACITORS

Mark	No. Description	Part No.
	C8012,C8013	CCSSCH100D50
	C8026,C8027	CCSSCH221J50
	C8024,C8025	CKSRYB105K6R3
	C8014,C8019	CKSRYF104Z16
	C8029-C8031	CKSSYB102K50
	C8033,C8034	CKSSYB103K16
	C8037	CKSSYB104K10
	C8001-C8011,C8015-C8018	CKSSYF104Z16
	C8020-C8023,C8032,C8036	CKSSYF104Z16

RESISTORS

Mark	No. Description	Part No.
	R8001,R8002,R8013	BCN1070
	R8033,R8036,R8050,R8064	BCN1072
	R8004	RAB4C0R0J
	R8030	RAB4C472J
	R8077,R8079	RS1/16SS5101F
	R8065-R8068,R8073,R8074,R8076	RS1/16SS56R0D
	R8078	RS1/16SS56R0D

Mark No.	Description	Part No.
	R8051	RS1/16SS6341D
	Other Resistors	RS1/16SS###J

OTHERS

Mark No.	Description	Part No.
	CN8001,CN8002 1394 TERMINAL	AKP1268
	X8001 CRYSTAL RESONATOR (24.576MHz)	VSS1192

J SW ASSY

SWITCHES AND RELAYS

Mark No.	Description	Part No.
	S8701 POWER SWITCH	ASG1097

OTHERS

Mark No.	Description	Part No.
	CN8703 3P PH CONNECTOR	AKM1289

K POWER SUPPLY UNIT

POWER SUPPLY UNIT has no service part.

6. ADJUSTMENT

1. At shipment, the unit is adjusted to its best conditions. Normally, it is not necessary to readjust even if an assembly is replaced. If the adjustment is shifted or if it becomes necessary to readjust because of part replacement, etc., perform the adjustment as described below.
2. Any value changed in Service/Factory mode will be stored in memory as soon as it is changed. Before readjustment, take note of the original values for reference in case you need to restore the original settings.
3. Use a stable AC power supply.

6.1 HOW TO ENTER SERVICE FACTORY MODE

■ Refer to the technical document (Service Know-How).

6.2 POSSIBLE CASES WHERE READJUSTMENT IS REQUIRED

■ When any of the following assemblies is replaced

POWER SUPPLY Unit	➡	No adjustment required
AV BOARD Assy	➡	No adjustment required
MR MAIN BOARD Assy	➡	No adjustment required
TUNER Board Assy	➡	No adjustment required However, HOST ID is changed. Please tell a customer about new HOST ID. Refer to the following note and instruction manual.
Other assemblies	➡	No adjustment required

■ When any part in the following assemblies is replaced

POWER SUPPLY Unit	➡	The assembly must be replaced as a unit, and no part replacement is allowed.
AV BOARD Assy	➡	If the front end (U7501, U7502) is replaced, adjustment is required.
MR MAIN BOARD Assy	➡	The assembly must be replaced as a unit, and no part replacement is allowed.
TUNER Board Assy	➡	The assembly must be replaced as a unit, and no part replacement is allowed.
Other assemblies	➡	No adjustment required

■ Adjustment items

① Audio Level Adjustment
② Video Level Adjustment
③ Audio Level Adjustment
④ MSP Adjustment
⑤ MSP Adjustment

NOTE : Checking the Cable Card ID

The Media Receiver has a slot for a cable card that is used for managing your information by the cable TV company. The following procedure allows you to check your Cable Card ID and the Host ID.

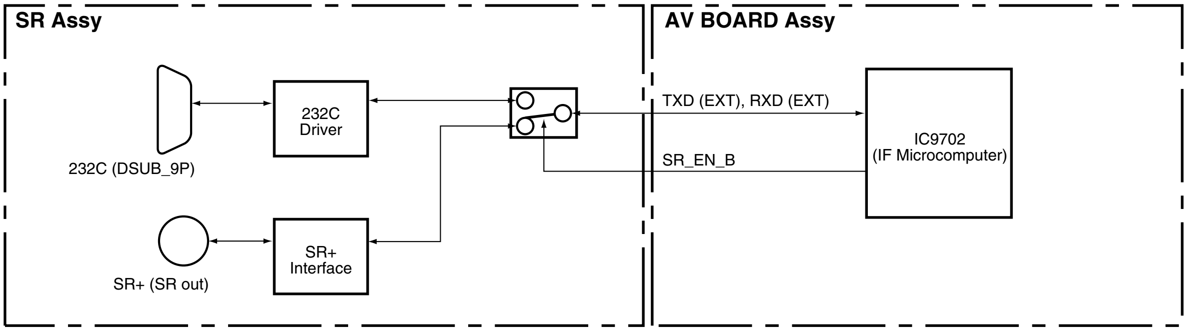
1 Press HOME MENU.
2 Select “Tuner Setup”. (↑/↓ then ENTER)
3 Select “Channel Setup”. (←/→ then ENTER)
4 Select “POD ID”. (↑/↓)
- The Host ID and Cable Card ID appear.

5 Press HOME MENU to exit the menu.

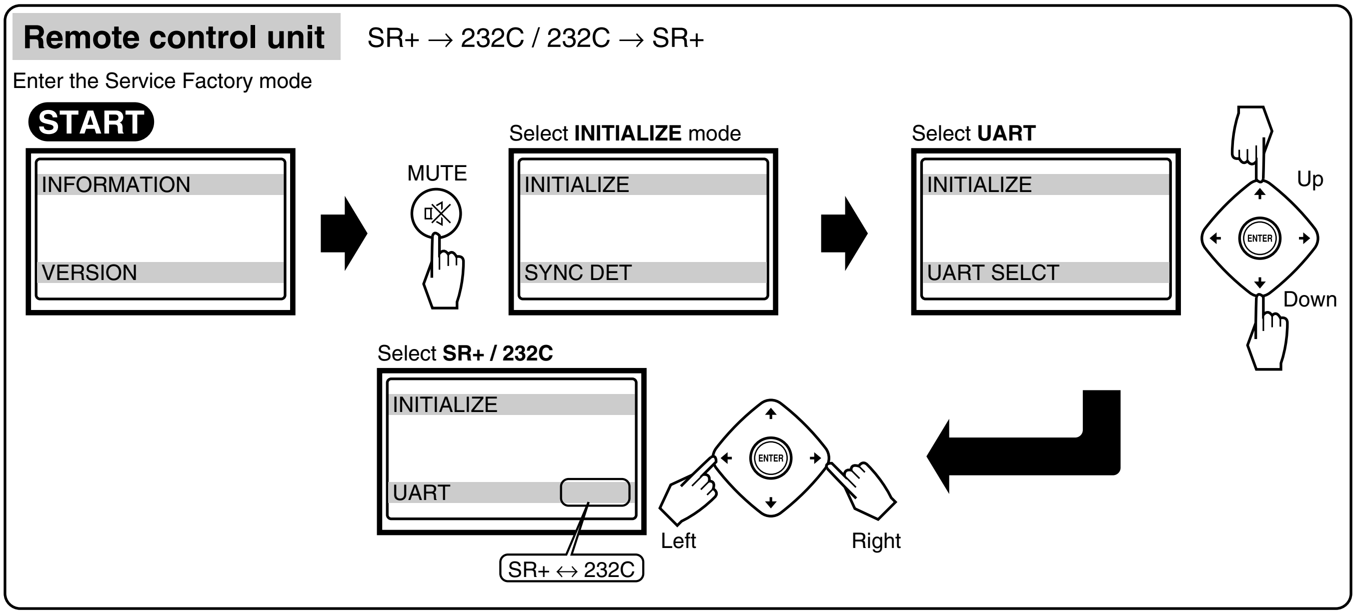
6.3 USING RS-232C COMMANDS

For the PDP-435HD and PDP-505HD series Plasma Displays, the circuitry is structured as shown in the diagram below to support the SR+ system. Controlling with either the SR+ system or RS-232C commands can be selected. As the SR+ system is selected at shipment, to control with RS-232C commands in servicing it is necessary to switch the paths. After servicing, be sure to return the setting to the SR+ system.

● Rough diagram of switching between SR+ and RS-232C


SR Assy
AV BOARD Assy
232C (DSUB_9P)
232C Driver
SR+ (SR out)
SR+ Interface
TXD (EXT), RXD (EXT)
SR_EN_B
IC9702
(IF Microcomputer)

● How to switch from SR+ to RS-232C



Remote control unit SR+ → 232C / 232C → SR+

Enter the Service Factory mode

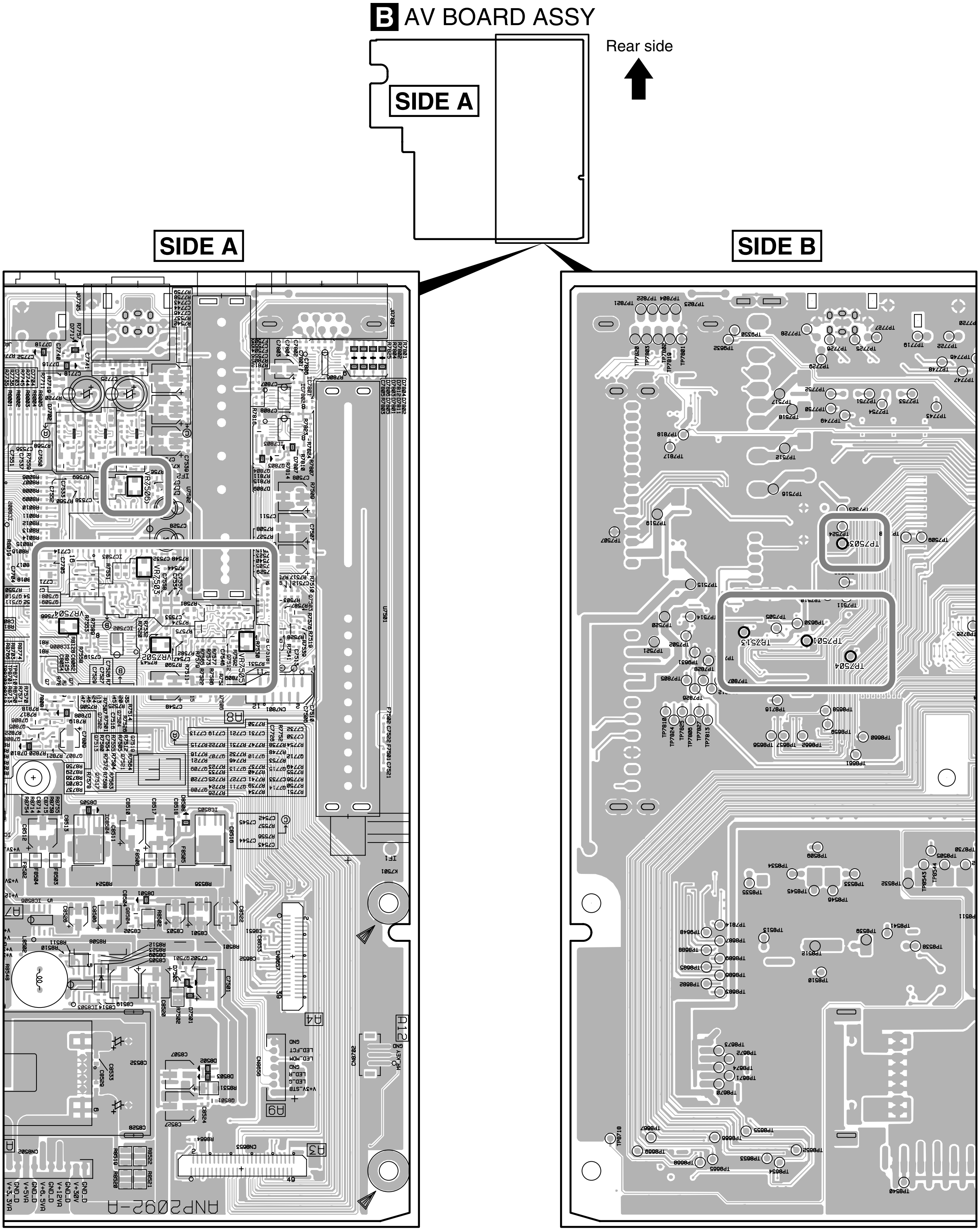
START
INFORMATION
VERSION
MUTE
Select INITIALIZE mode
INITIALIZE
SYNC DET
Select UART
INITIALIZE
UART SELCT
Up
ENTER
Down
Select SR+ / 232C
INITIALIZE
UART
SR+ ↔ 232C
ENTER
Left
Right

Tips: How to change the SR+/RS-232C setting without entering Service Factory mode
Hold the **VOLUME** ⊿+ or ⊿– key on the remote control unit pressed for 3-10 seconds during Standby mode.
Then within 3 seconds after the key is released, hold the **2-screen** ◑ key on the remote control unit pressed for 3-10 seconds.
Then within 3 seconds after the key is released, use the **SET** key on the remote control unit to set to RS-232C (the baud rate last selected is chosen) or the **HOME MENU** key to set to SR+.

6.4 ADJUSTMENT ITEMS

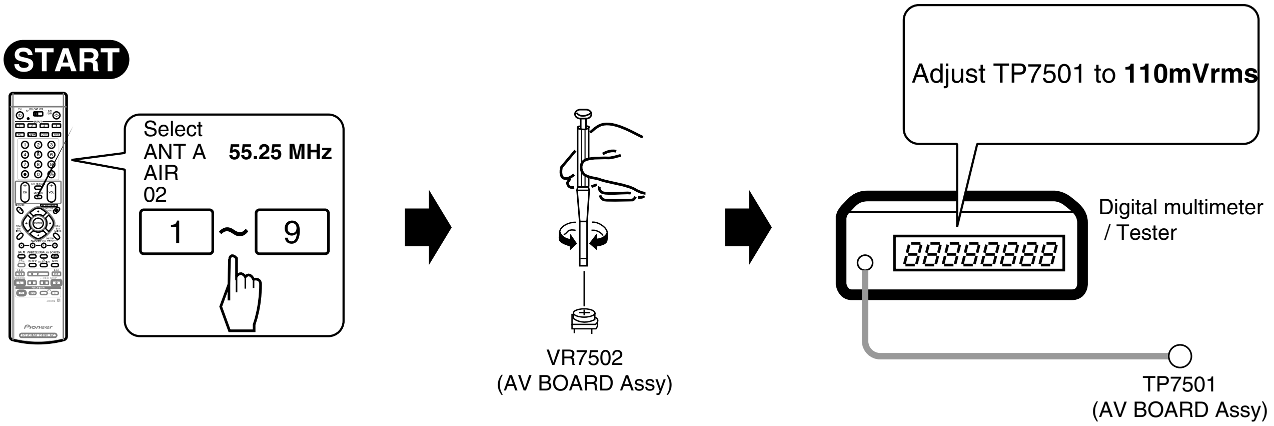
If readjustment is necessary because of adjustment error at shipment, perform adjustments as shown below.

- **Adjustment Points**


B AV BOARD ASSY
Rear side
SIDE A
SIDE A
SIDE B
VR7506
VR7503
VR7504
VR7502
VR7505
TP7503
TP7513
TP7501
TP7504
ANP2092-A

① Audio Level Adjustment

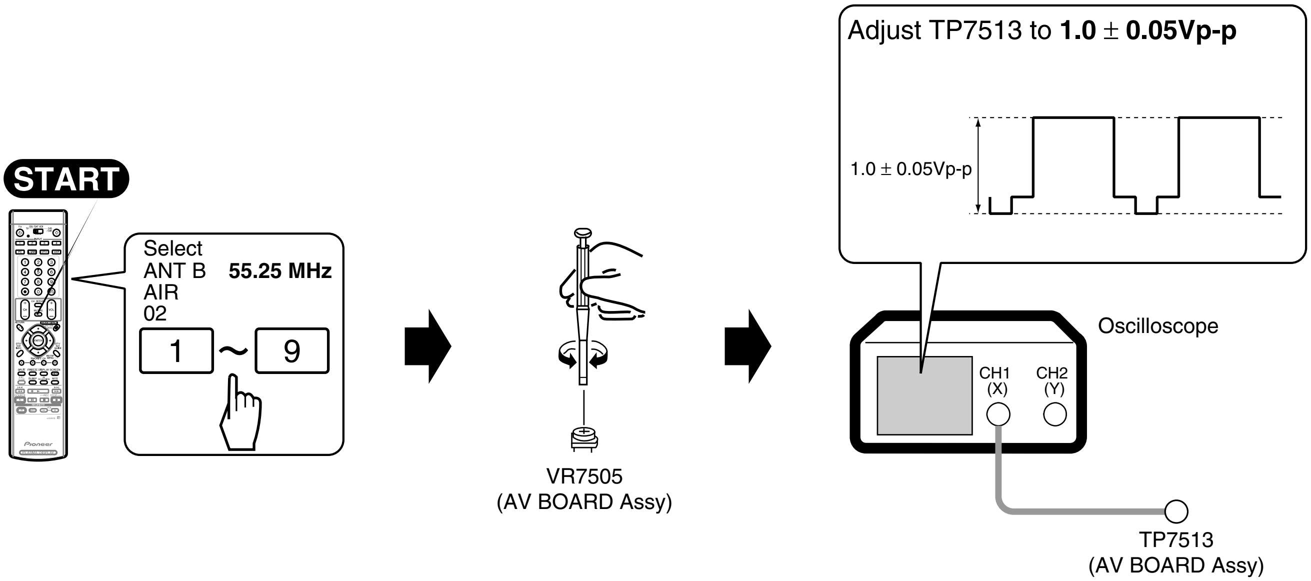
Equipment : SG, Digital mutimeter / Tester
Condition : Input RF level 60dBμV
1kHz MONO 100%


START
Select
ANT A 55.25 MHz
AIR
02
1 ～ 9
VR7502
(AV BOARD Assy)
Digital multimeter
/ Tester
88888888
TP7501
(AV BOARD Assy)

Adjust TP7501 to **110mVrms**

② Video Level Adjustment

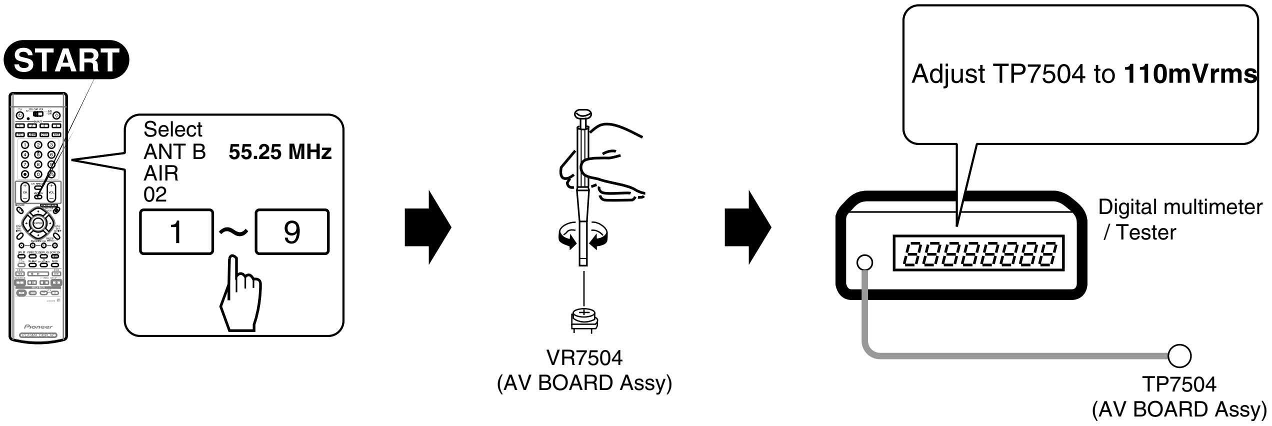
Equipment : SG, Oscilloscope
Condition : Input RF level 60dBμV
Modulation 87.5%
White bar 100%


START
Select
ANT B 55.25 MHz
AIR
02
1 ～ 9
VR7505
(AV BOARD Assy)
1.0 ± 0.05Vp-p
Oscilloscope
CH1
(X)
CH2
(Y)
TP7513
(AV BOARD Assy)

Adjust TP7513 to **1.0 ± 0.05Vp-p**

③ Audio Level Adjustment

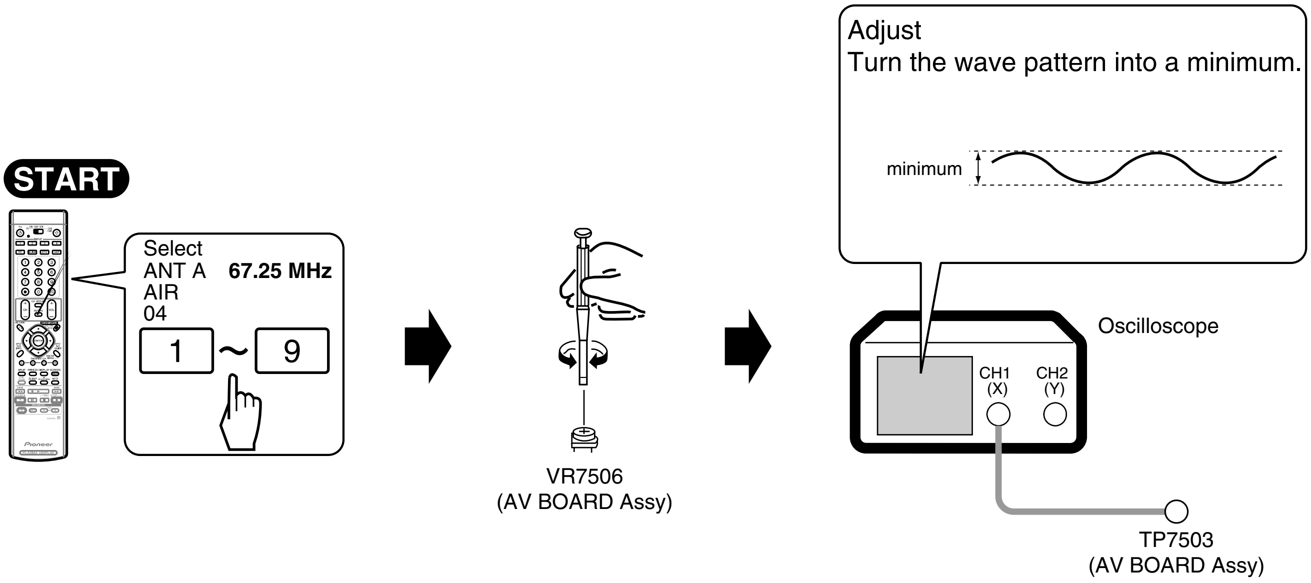
Equipment : SG, Digital mutimeter / Tester
Condition : Input RF level 60dBμV
1kHz MONO 100%


START
Select
ANT B 55.25 MHz
AIR
02
1 ~ 9
VR7504
(AV BOARD Assy)
Digital multimeter
/ Tester
88888888
TP7504
(AV BOARD Assy)

Adjust TP7504 to **110mVrms**

④ MSP Adjustment

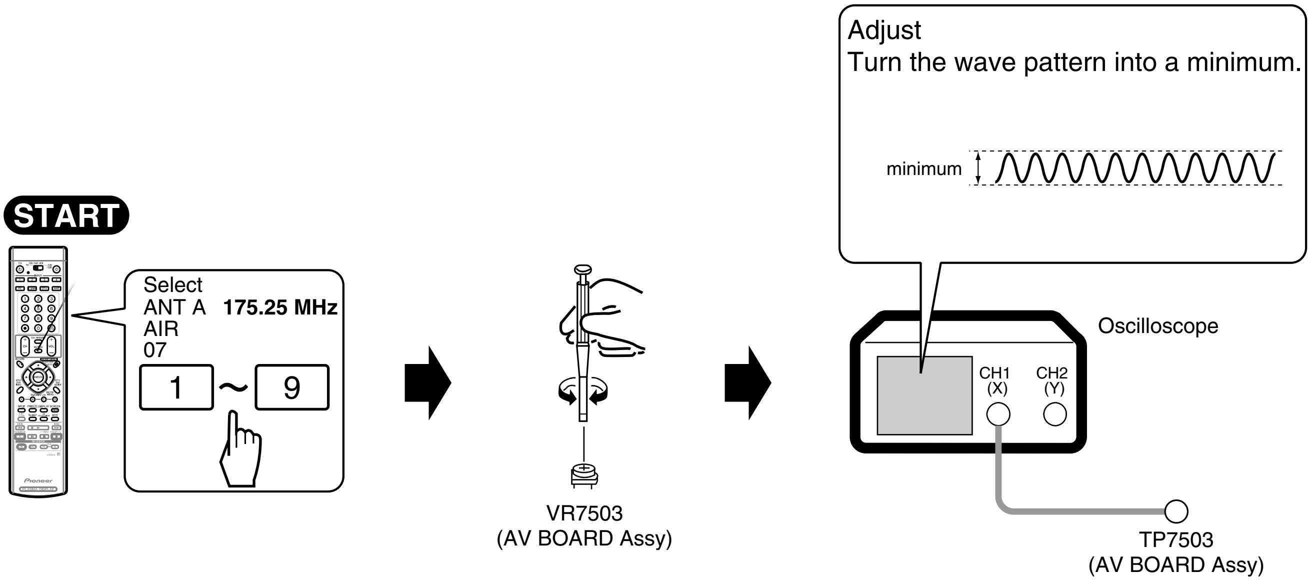
Equipment : SG, Digital mutimeter / Tester
Condition : Input RF level 60dBμV
300Hz STEREO 100% Lch Only


START
Select
ANT A 67.25 MHz
AIR
04
1 ~ 9
VR7506
(AV BOARD Assy)
minimum
Oscilloscope
CH1
(X)
CH2
(Y)
TP7503
(AV BOARD Assy)

Adjust
Turn the wave pattern into a minimum.

⑤ MSP Adjustment

Equipment : SG
Condition : Input RF level 60dBμV
5kHz STEREO 100% Lch Only

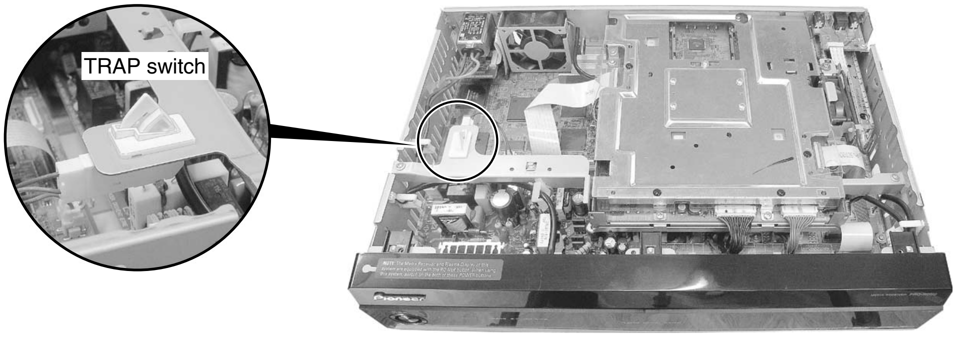

Adjust
Turn the wave pattern into a minimum.
minimum
START
Select
ANT A 175.25 MHz
AIR
07
1 ~ 9
VR7503
(AV BOARD Assy)
Oscilloscope
CH1 (X)
CH2 (Y)
TP7503
(AV BOARD Assy)

6.5 TRAP SWITCH

● Outline and Notes

For video data transmission from the Media Receiver to the PDP-435HD and PDP-505HD-series Plasma Displays, digital signals are used. Therefore, this unit adopts the HDCP (High-bandwidth Digital Content Protection) system for copyright protection. This unit is also provided with a detection switch (TRAP switch) that will prohibit the unit from being turned on again "if the upper plate of the unit is accidentally opened," in order to prevent the panel technology from being leaked out.

The TRAP switch is disabled while the unit is turned off.
When performing internal diagnosis of the PDP, fix the switch to the OFF position using adhesive tape before turning on the unit. After servicing, be sure to remove the adhesive tape.



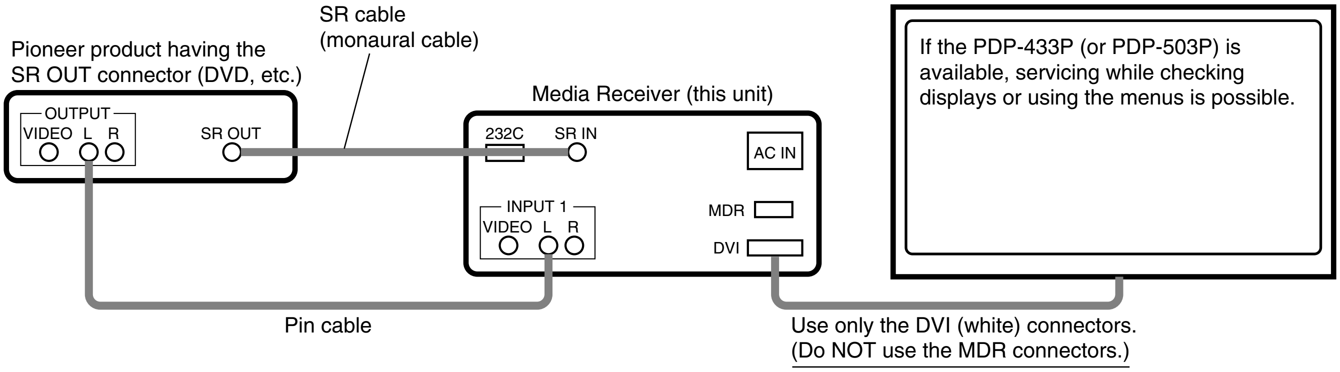
6.6 SERVICING USING ONLY THE MEDIA RECEIVER

For servicing of the PDP-435HD and PDP-505HD-series Plasma Display using only the Media Receiver, the following two methods can be used:

● Remote controlling using SR connections

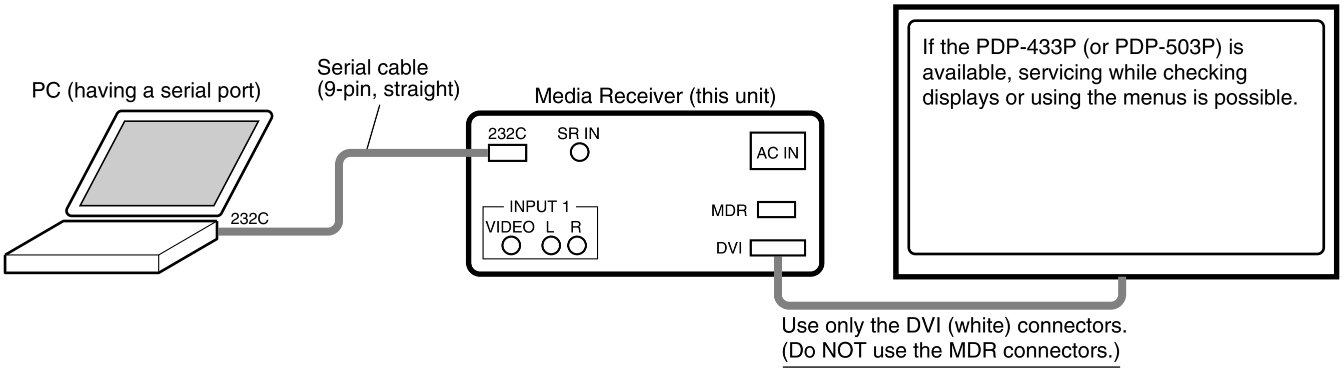
About connections

- Connect the SR OUT connector of a Pioneer product having that connector (a DVD in the following example) and the SR IN connector of the Media Receiver, using the SR cable. As the remote control sensor is not provided with the Media Receiver, this connection is required for using the remote control unit if the panel is not available. In this case, aim the remote control unit at the remote control sensor of the device (DVD in this case).
- Connect either the audio or the video output of the device (DVD in the example) and the corresponding audio or video input of the Media Receiver, using a cable with phono plugs. This connection is required in order to use ground in common with the SR cable, because with the SR cable connection the ground connection for signal reference is not available. In the example, the audio L channel is used, but the audio R channel or video can be used instead.
- If the plasma display for a previous model, such as the PDP-433P or PDP-503P, is available, servicing while checking displays or using the menus is possible. For this, connect only the DVI connectors (white) of the Media Receiver and the plasma display. The MDR connector of the Media Receiver must not be used, even though it has the same shape and number of pins, because signals assigned to the connectors differ. Using the MDR connector may damage the unit.


SR cable
(monaural cable)
Pioneer product having the
SR OUT connector (DVD, etc.)
OUTPUT
VIDEO L R
SR OUT
Media Receiver (this unit)
232C
SR IN
AC IN
INPUT 1
VIDEO L R
MDR
DVI
If the PDP-433P (or PDP-503P) is available, servicing while checking displays or using the menus is possible.
Pin cable
Use only the DVI (white) connectors.
(Do NOT use the MDR connectors.)

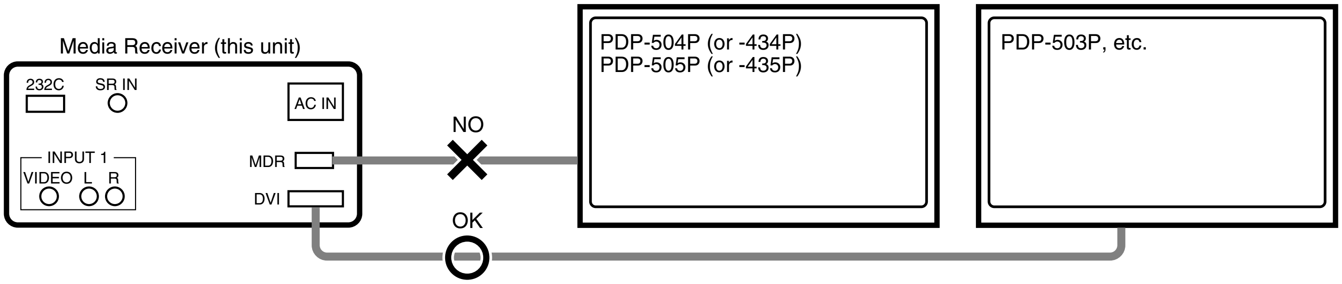
● RS-232C control using a PC

In this case the setting is RS-232C 38400bps, and the setting of "6.3. USING RS-232C COMMANDS" is not related.
Please set baud rate of PC in 38400bps.
For connection with the PC, use a straight cable.


PC (having a serial port)
Serial cable
(9-pin, straight)
232C
Media Receiver (this unit)
232C
SR IN
AC IN
INPUT 1
VIDEO L R
MDR
DVI
If the PDP-433P (or PDP-503P) is available, servicing while checking displays or using the menus is possible.
Use only the DVI (white) connectors.
(Do NOT use the MDR connectors.)

● Note on connection

If the MDR connector of the PDP-434HD or -504HD-series is used, it is considered that the PDP-434P (or -504P) is connected, and the Media Receiver operates on such precondition, **which may result in a failure of the Media Receiver. Be sure not to connect to the MDR connector.** (Do NOT use the MDR connector when servicing the Media Receiver alone.)


Media Receiver (this unit)
232C
SR IN
AC IN
INPUT 1
VIDEO L R
MDR
DVI
NO
OK
PDP-504P (or -434P)
PDP-505P (or -435P)
PDP-503P, etc.

6.7 SERVICE FACTORY MODE

To operate in Service Factory mode, use the supplied remote control unit.

How to enter Service Factory Mode

Prease refer to the technical documentation (Service Know-How). same as

Operation in Service Factory mode

● Functions whose settings are set to OFF

The settings for the following functions are set to OFF when Service Factory mode is entered (including when the "FAY" command is received):

- Two-screen operations (input function set on the main side is selected)
- P ZOOM
- STILL
- Detection of the TRAP switch (The log in the EEPROM is retained.)

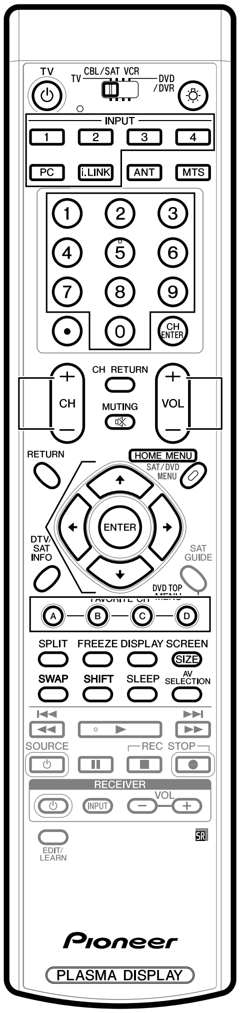
● User data

User data will be treated as follows:

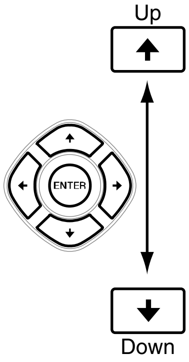
- User data on picture- and audio-quality adjustments are not reflected (data stored in memory will be retained).
- Data on screen position are reset to the default values (data stored in memory will be retained).

Remote control codes in Service Factory mode

SR Function	Main Function	Remarks
Muting	Switching the main items	Shifting to the next main item
DOWN	Switching the subtitled items	Shifting downward to the next subtitled item
UP	Switching the subtitled items	Shifting upward to the next upper layer
LEFT	Increasing the adjustment value	Increasing the adjustment value
RIGHT	Decreasing the adjustment value	Decreasing the adjustment value
SET	Switching layers	Shifting downward or upward to the next lower or upper layer
INPUT	Selecting input	Shifting the input to the next function
INPUTxx	Selecting input	Switching the input to xx
CH+	Increasing the channel number	Advancing a preset channel (effective when Function is set to TV)
CH-	Decreasing the channel number	Turning a preset channel backward (effective when Function is set to TV)
Numeric keys	Function: TV	Function: TV (previously selected channel number is selected)
POWER	Power OFF	Turning the power off
FACTORY	Factory OFF	Turning Service Factory mode off
MENU	Menu ON	Turning Service Factory mode off and Menu mode on


TV
CBL/SAT VCR
TV
DVD /DVR
INPUT
1
2
3
4
PC
i.LINK
ANT
MTS
1
2
3
4
5
6
7
8
9
0
CH ENTER
CH RETURN
CH
MUTING
VOL
RETURN
HOME MENU
SAT/DVD MENU
ENTER
DTV SAT INFO
SAT GUIDE
DVD TOP MENU
A
B
C
D
SPLIT
FREEZE
DISPLAY
SCREEN SIZE
SWAP
SHIFT
SLEEP
AV SELECTION
SOURCE
REC
STOP
RECEIVER
VOL
INPUT
EDIT/ LEARN
SR
Pioneer
PLASMA DISPLAY

Changes of the Service Factory menus



① INFORMATION mode

1. VERSION (1)
   . VERSION (2)
2. SERIAL
3. PANEL PD
4. PANEL SD
5. MR NG
6. TEMPERATURE
7. HOUR METER
8. MR HOUR METER
9. PULSE METER
10. P ON COUNTER
11. DIGITAL EEPROM
12. HDMI SIGNAL INFO1
    . HDMI SIGNAL INFO2
    . DTV TUNING STATUS1
    . DTV TUNING STATUS2

MUTE

② FUNCTION CHECK mode

1.
2.
3.
4.
5. FAN
6. AFT LOCK
7.

MUTE

③ INDIVIDUAL mode

1. CVY GAIN
2. RY GAIN
3. GY GAIN
4. BY GAIN

MUTE

④ COMMON ADJ. mode

1. RGB 1
2.
3. PANEL 1
4. PANEL 2

MUTE

⑤ OPTION mode

1. MASK
2.
3. PEAK LIMITER
4. DYNAMIC RANGE
5. EDIT WRITE MODE
6.
7.
8.
9.
10.
11.
12.
13. CH PRESET
14. ANTENNA MODE

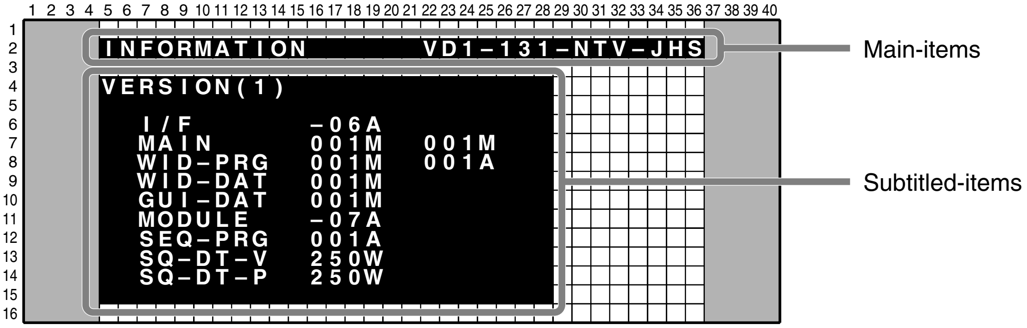
MUTE

⑥ INITIALIZE mode

1. SYNC DET
2. DRIVE MODE
3. SIDE MASK LEVEL
4. PANEL REVICE
5. FINAL SETUP
6. C TEMP LOW
7. C TEMP MID LOW
8. C TEMP MID
9. C TEMP MID HIGH
10. C TEMP HIGH
11.
12. UART SELECT
13. CVT AUTO
14. HDMI INTR POSITION
    SUS FREQ MODE

MUTE

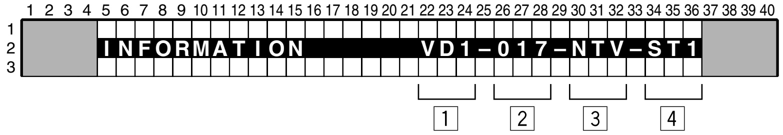
Indications in Service Factory mode



```
INFORMATION        VD1-131-NTV-JHS
VERSION(1)
  I/F         -06A
  MAIN         001M    001M
  WID-PRG      001M    001A
  WID-DAT      001M
  GUI-DAT      001M
  MODULE      -07A
  SEQ-PRG      001A
  SQ-DT-V      250W
  SQ-DT-P      250W
```

Main-item indications

Four parameters are displayed:



```
INFORMATION        VD1-017-NTV-ST1
```

1 Input function

Input Functions	On-Screen Display
VIDEO1	VD1
Terrestrial wave A	ARA
Terrestrial wave B	ARB
CABLE A	CBA
CABLE B	CBB

2 SIG mode and screen size

Note: See SIG-Mode Tables. (See next page.)

3 Color system and signal type

Color System and Signal Type		On-Screen Display
NTSC	Composite input/ S-connector input	NTV
BLACK/WHITE		BWV
Y / CB / CR		CBR
Y / PB / PR		PBR
RGB		RGB
Digital video signal		DIG

4 Option (Destination, etc.)

Options	On-Screen Display
HD system in North America(Regular)	ATS
HD system in North America(ELITE)	AHS

● SIG-Mode Table

The signal mode is displayed in three characters:
First character: Resolution of the input signal (numerics for the video signals, and alphabetics for the PC signals)
Second character: Grouping of the V frequencies

SIG-Mode table for video signals (resolutions and V frequencies)

SIG-Mode	Signal Type	Vertical Frequency fv (Hz)	Horizontal Frequency fh (kHz)
13*	SDTV • 525i	60.000	15.750
21*	SDTV • 625i	50.000	15.625
33*	SDTV • 525p	60.000	31.500
41*	HDTV • 1125i	50.000	28.125
43*		60.000	33.750
51*	SDTV • 625p	50.000	31.250
61*	HDTV • 750p	50.000	37.500
63*		60.000	45.000

SIG-Mode table for PC signals (resolutions and V frequencies)

SIG-Mode	Signal Type	Vertical Frequency fv (Hz)	Horizontal Frequency fh (kHz)
A2*	720 × 400	56.000	24.825
A5*		70.087	31.469
A8*		85.050	37.861
B3*	640 × 480	59.940	31.469
B4*		66.666	35.000
B6*		72.809	37.861
B7*		75.000	37.500
B8*		85.000	43.300
C3*	852 × 480	60.000	31.680
D2*	800 × 600	56.250	35.1556
D3*		60.317	37.879
D6*		72.188	48.077
D7*		75.000	46.875
D8*		85.061	53.674
E7*	832 × 624	74.550	49.725
F3*	1024 × 768	60.004	48.363
F5*		70.069	56.476
F7*		75.029	60.023
F8*		84.997	68.677
G2*	1280 × 768	56.250	45.113
G3*		59.833	47.986
G5*		70.000	56.137

2nd Character	Reference V Frequency	Remarks
–	–	No signal
1	50	
2	56	
3	60	
4	66	
5	70	
6	For interpolation of 72-Hz area	For distinguishing between 70-Hz or 75-Hz area
7	75	
8	85	
9 (spare)	–	
?	–	Out of range

Third character: Selection of the screen size by the user is displayed.
(○: available, ×: not available)

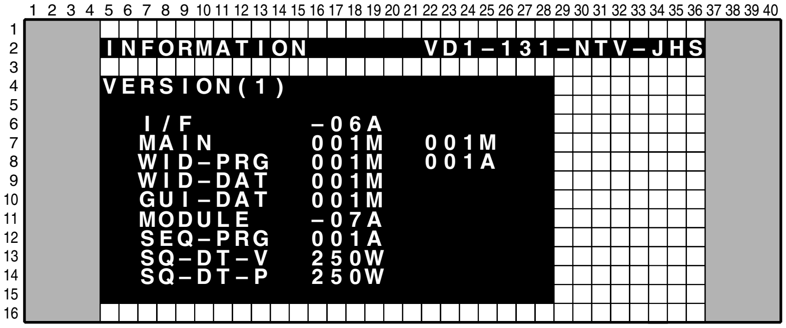
3rd Character	Description on GUI	VIDEO	PC	Remarks
0	DOT BY DOT	×	○	
1	4 : 3	○	○	
2	FULL (FULL1)	○	○	
3	ZOOM	○	×	
4	CINEMA	○	×	
5	WIDE	○	×	Indude WIDE-HD
6	FULL 14 : 9	○	×	
7	CINEMA 14 : 9	○	×	
8	FULL2	○	○	HDTV1035i
9	OVERSCAN	○	×	

① INFORMATION mode

● Operation items

No.	Function / Display	Content
1	VERSION (1)	The flash memory versions for each device are displayed. (common part)
2	VERSION (2)	The flash memory versions for each device are displayed. (individual part)
3	SERIAL	For displaying the serial number of the product (not used)
4	PANEL PD	Power-down generated on the panel side and its time of occurrence are displayed.
5	PANEL SD	Shutdown generated on the panel side and its time of occurrence are displayed.
6	MR NG	Power-down and/or shutdown generated on the Media Receiver side and their/its time of occurrence are displayed.
7	TEMPERATURE	Information on temperature is displayed.
8	HOUR METER	Cumulative power-on time to the panel is displayed.
9	MR HOUR METER	Cumulative power-on time to the Media Receiver is displayed.
10	PULSE METER	The pulse meter value on the panel side is displayed.
11	P ON COUNTER	The number of times the power to the panel was turned on is displayed.
12	DIGITAL EEPROM	The status of the backup data for the module microcomputer is displayed.
13	HDMI SIGNAL INFO.	The file information of HDMI series are displayed.
14	DTV TUNING STATUS	Information of DTV Tuning Status are displayed.

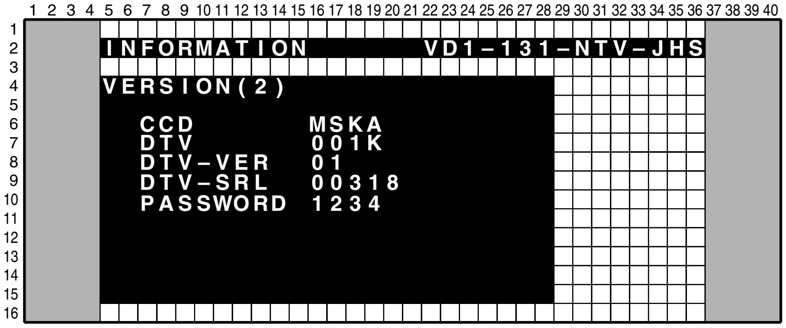
1. VERSION (1)



```
INFORMATION         VD1–131–NTV–JHS

VERSION(1)

  I/F          –06A
  MAIN         001M   001M
  WID–PRG      001M   001A
  WID–DAT      001M
  GUI–DAT      001M
  MODULE       –07A
  SEQ–PRG      001A
  SQ–DT–V      250W
  SQ–DT–P      250W
```

Flash memory of Device	On-Screen Display
User IF microcomputer (MR: IC8702)	I / F
Main microcomputer (MR: IC7207)	MAIN
Program for IC 3 (MR: IC7101)	WID–PRG
Enhanced data for IC 3 (MR: IC7101)	WID–DAT
GUI data for IC 3 (MR: IC7101)	GUI–DAT
Module microcomputer (for the PDP)	MODULE
Program for IC 4 (for the PDP)	SEQ–PRG
Sequence data for IC 4 Video	SQ–DT-V
Sequence data for IC 4 PC	SQ–DT-P

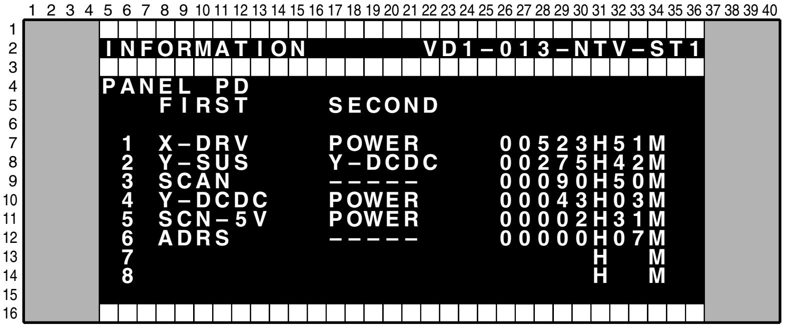
2. VERSION (2)



```
INFORMATION         VD1–131–NTV–JHS

VERSION(2)

  CCD          MSKA
  DTV          001K
  DTV–VER      01
  DTV–SRL      00318
  PASSWORD     1234
```

Device	Name Display	Version Display	Remarks
CCD-UCOM	CCD	4 character	
DTV Software Version	DTV	4 character	
DTV hardware Version	DTV-VER	2 character	
DTV hardware Serial	DTV-SRL	6 character	
USER Password	PASSWORD	4 character	

4. PANEL PD


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

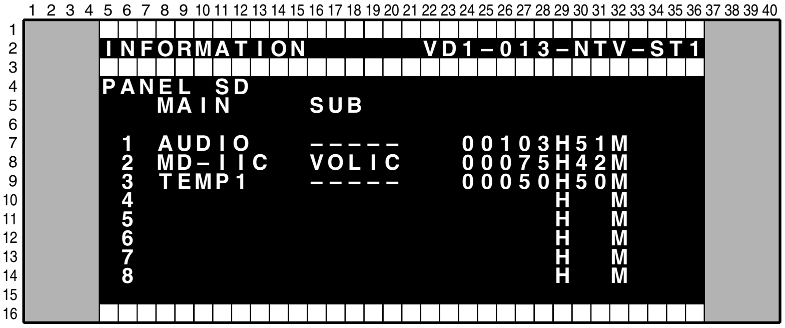
```
INFORMATION          VD1-013-NTV-ST1

PANEL PD
   FIRST         SECOND

 1 X-DRV         POWER      00523H51M
 2 Y-SUS         Y-DCDC     00275H42M
 3 SCAN          -----      00090H50M
 4 Y-DCDC        POWER      00043H03M
 5 SCN-5V        POWER      00002H31M
 6 ADRS          -----      00000H07M
 7                               H  M
 8                               H  M
```

Power-down information only on the panel side is displayed.

• Panel power-down information

No.	Type of Power-down	On-Screen Display	No.	Type of Power-down	On-Screen Display
1	No corresponding item	- - - - -	8	Power-down of the address system	ADRS
2	Power-down of the main power supply system	POWER	9	Power-down of the X-DRIVE circuitry	X-DRV
3	Power-down of the scanning system	SCAN	A	Power-down of the X-DC/DC converter	X-DCDC
4	Power-down in the path between the scanning system and 5-V power supply	SCN-5V	B	Power-down of the X-SUS system	X-SUS
5	Power-down of the Y-Drive system	Y-DRV	C	Power-down of the driving IC power supply system	D-DCDC
6	Power-down of the Y-DC/DC converter	Y-DCDC	D	Power-down of the driving stopped	IC4 (IC5401)
7	Power-down of the Y-SUS system	Y-SUS	F	Power-down point unidentified	UNKNOWN

5. PANEL SD


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

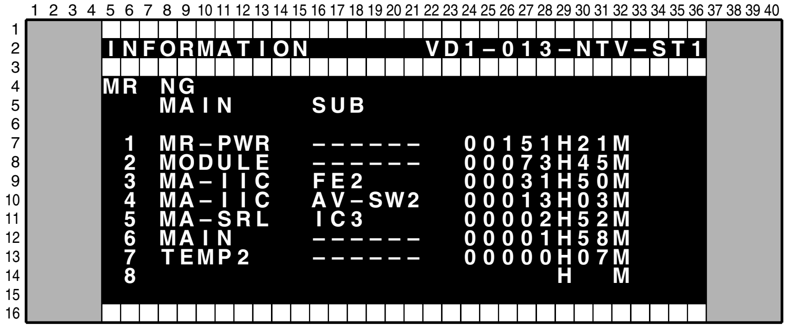
```
INFORMATION          VD1-013-NTV-ST1

PANEL SD
   MAIN       SUB

 1 AUDIO      -----     00103H51M
 2 MD-IIC     VOLIC     00075H42M
 3 TEMP1      -----     00050H50M
 4                           H  M
 5                           H  M
 6                           H  M
 7                           H  M
 8                           H  M
```

The shutdown log only on the panel side is displayed.

• Panel shutdown information

No.	Type of Shutdown	On-Screen Display (MAIN)	Remarks
1	Abnormality in IC 4 communication	IC4	
2	Abnormality in module microcomputer IIC communication	MD-IIC	Subcategories exist. (EROM4K : IC5206, EROM2K : IC402, VOLIC : IC3502)
3	Abnormality in RST2	RST2	
4	Abnormality in panel temperature	TEMP1	
5	Short-circuiting of the speakers	AUDIO	

6. MR NG



```
INFORMATION          VD1-013-NTV-ST1

MR  NG
    MAIN       SUB

 1  MR-PWR     ------     00151H21M
 2  MODULE     ------     00073H45M
 3  MA-IIC     FE2        00031H50M
 4  MA-IIC     AV-SW2     00013H03M
 5  MA-SRL     IC3        00002H52M
 6  MAIN       -------    00001H58M
 7  TEMP2      ------     00000H07M
 8                            H  M
```

Information on power-down and shutdown of the Media Receiver side is displayed.

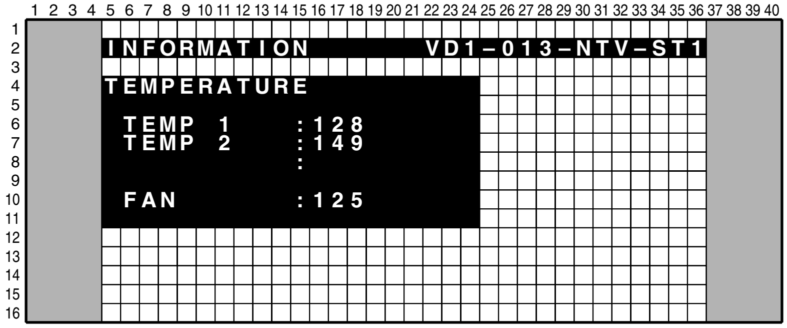
• Media Receiver NG information

No.	Type of Failure	On-Screen Display (MAIN)	Remarks
1	Abnormality in module microcomputer communication	MODULE	
2	Abnormality in 3-wire serial communication of the main microcomputer	MA-SRL	Subcategories exist.
3	Abnormality in main microcomputer IIC communication	MA-IIC	Subcategories exist.
4	Abnormality in main microcomputer communication	MAIN	
5	Abnormality in temperature of the Media Receiver	TEMP2	
6	Fan stopped.	FAN	
7	Abnormality in communication of the digital tuner	UART	Subcategories exist.
8	Abnormality in the ASIC power supply on the MR side	M-DCDC	

• Subcategory information

Type of Shutdown	Subcategory	Remarks
MA-SRL	IF microcomputer (IC8702), IC2 (IC7004), IC3 (IC7101)	
MA-IIC	MA-EEP (IC7205), IC1-M (IC6107), IC1-S (IC6255), HDMI1 (IC6801), HDMI2 (IC6881)*2, AD-M (IC6402), AD-S (IC6602), IC6 (IC6951), CCD (IC8903)*2, FE1 (U7501), FE2 (U7502)*2, AV-SW1 (IC8002), AV-SW2 (IC8005), TX-COM (IC8904)*3, MPX (IC7502)*3, TX-BSY(IC8904)*3	*2 : U.S. model only *3 : Europe model and General area model
Interval UART Communication	PS/RST	No power, or reset status continued
	RETRY	The signal 0x02 (ready) has not been received.
	DEVICE	Receive System Query Request Command
	CD-COM	PC Card Module Communication
	CD-DEV	PC Card Module
	CD-RST	PC Card Reset NG

7. TEMPERATURE



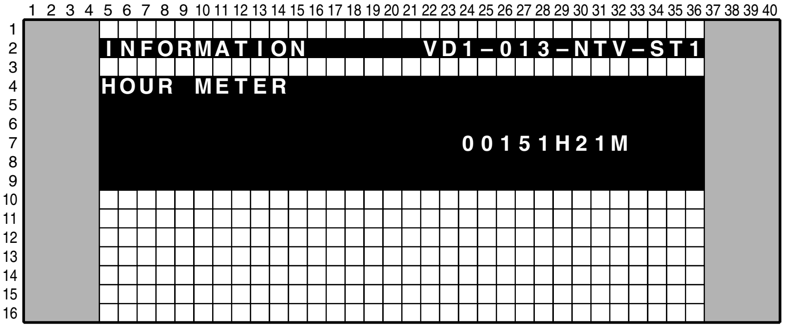
```
INFORMATION          VD1-013-NTV-ST1

TEMPERATURE

  TEMP 1      :128
  TEMP 2      :149
              :

  FAN         :125
```

TEMP1: The value read from the temperature sensor built into the panel is displayed in the range of 000-255.
Note: Refer to the service manual of the panel.

TEMP2: The value read from the temperature sensor built into the Media Receiver is displayed in the range of 000-255. For reference, the approximate value for 60°C is 86 and for 35°C is 67.
Reference: When TEMP2 exceeds 100 (about 78°C), SD LED flash 11 times.

FAN: The value of the Fan output is displayed. At shipment, the output is controlled in 2 steps, and the value for strong output is set to about 131, and the value for weak output is set to about 93.

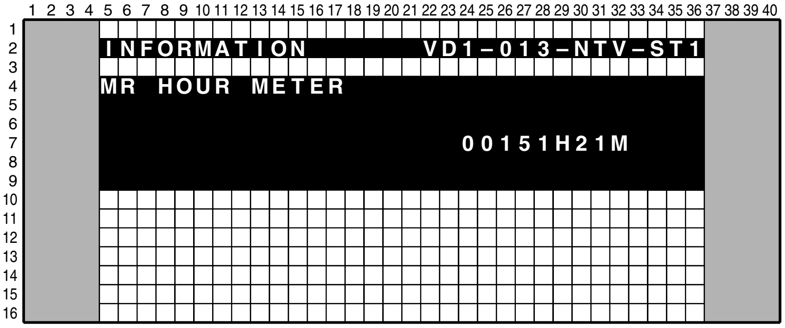
8. HOUR METER



```
INFORMATION          VD1-013-NTV-ST1
HOUR METER

                         00151H21M
```

The cumulative power-on time of the panel is displayed.

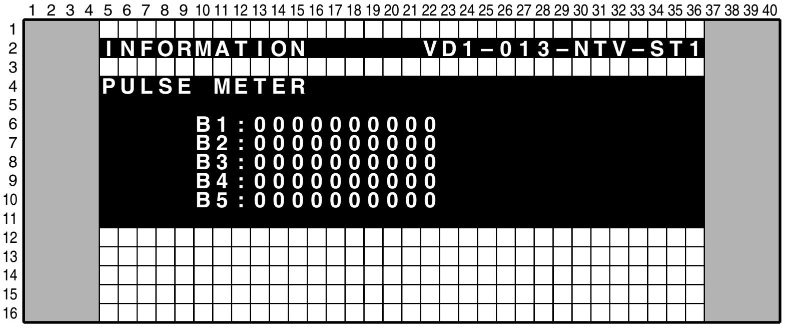
9. MR HOUR METER



```
INFORMATION          VD1-013-NTV-ST1
MR HOUR METER

                         00151H21M
```

The cumulative power-on time of the Media Receiver is displayed.

10. PULSE METER

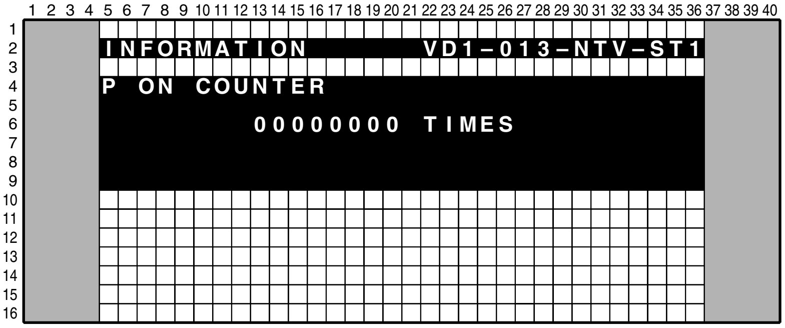


```
INFORMATION          VD1-013-NTV-ST1
PULSE METER

     B1:0000000000
     B2:0000000000
     B3:0000000000
     B4:0000000000
     B5:0000000000
```

The cumulative number of pulses of the panel is displayed.

Note : Dividing screen into sixteen times sixteen and counting five different locations on a screen.
Each item, it's counted total 3840 pixels (for 50 inch) or 3072 pixels (for 43 inch) discharging.
(1280/16 x 768/16 = 3840, 1204/16 x 768/16 = 3072)

11. P ON COUNTER



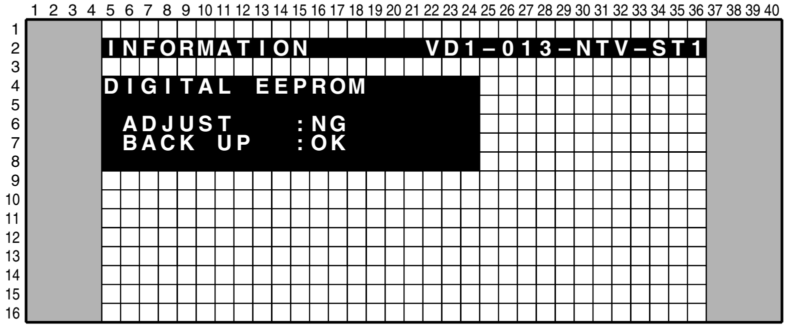
```
INFORMATION          VD1-013-NTV-ST1
P ON COUNTER
        00000000 TIMES
```

The cumulative number of times the panel was turned on is displayed.

12. DIGITAL EEPROM

When the DIGITAL Assy of the PDP is to be replaced, the adjustment values in it can be temporarily stored in the ROM then be written on the new Assy after replacement.

Whether adjustment has been made on the DIGITAL Assy of the PDP or not (i.e., in the state of a new service part), and whether the data on any adjustment values are retained in the backup ROM or not are displayed.

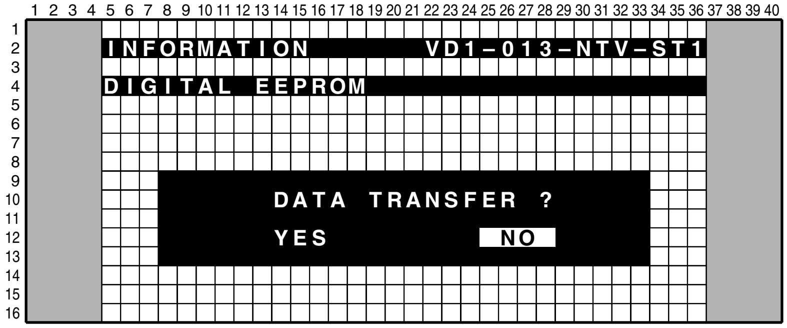


```
INFORMATION          VD1-013-NTV-ST1
DIGITAL EEPROM
  ADJUST     :NG
  BACK UP    :OK
```

• Downloading the data from the backup ROM

(This must be performed after the DIGITAL Assy is replaced.)

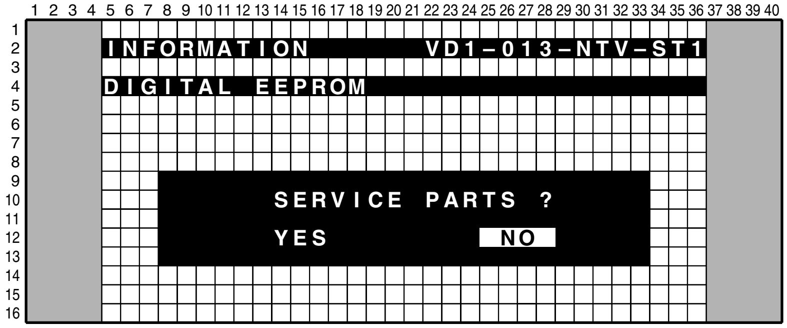
To download the data from the backup ROM, press the ENTER key while the above screen is displayed. The display changes as shown below. Move the cursor to YES then press the ENTER key. The data in the backup ROM are downloaded into the new Assy.



```
INFORMATION          VD1-013-NTV-ST1
DIGITAL EEPROM

            DATA TRANSFER ?
            YES        NO
```

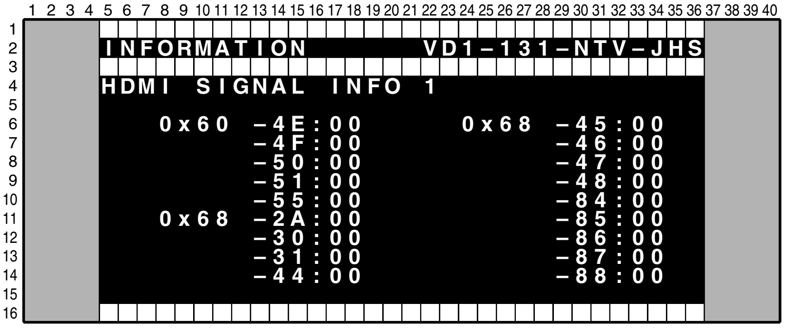
• Clearing the data in the ROM of the DIGITAL Assy

The display below is automatically displayed after either YES or NO is selected on the display shown above. Move the cursor to YES then press the ENTER key. Then all data on adjustment values in the ROM of the DIGITAL Assy are cleared.



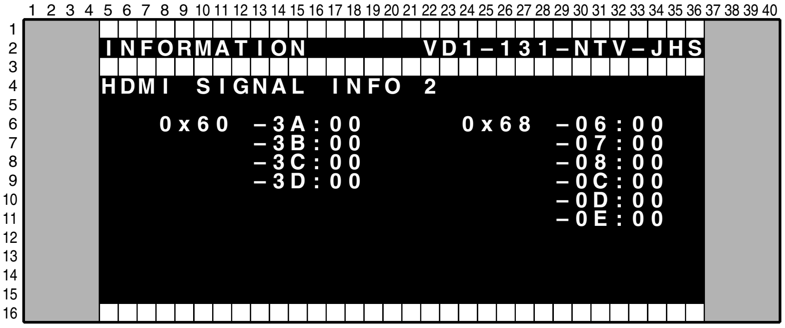
```
INFORMATION          VD1-013-NTV-ST1
DIGITAL EEPROM

            SERVICE PARTS ?
            YES        NO
```

13. HDMI SIGNAL INFO



```
INFORMATION        VD1-131-NTV-JHS

HDMI SIGNAL INFO 1

   0x60 -4E:00        0x68 -45:00
        -4F:00             -46:00
        -50:00             -47:00
        -51:00             -48:00
        -55:00             -84:00
   0x68 -2A:00             -85:00
        -30:00             -86:00
        -31:00             -87:00
        -44:00             -88:00
```

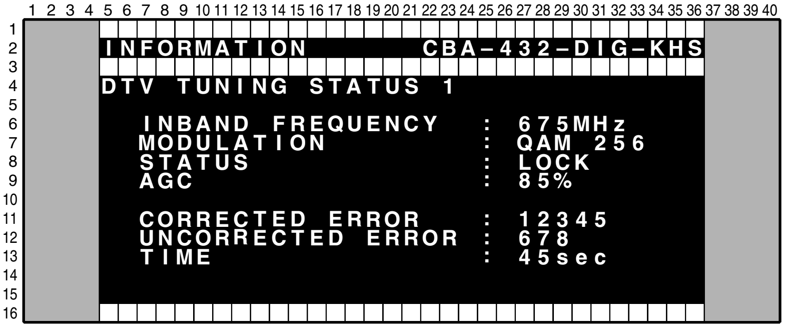
Technical examination display
(Reading status registers in HDMI receiver and displaying them by HEX value.)



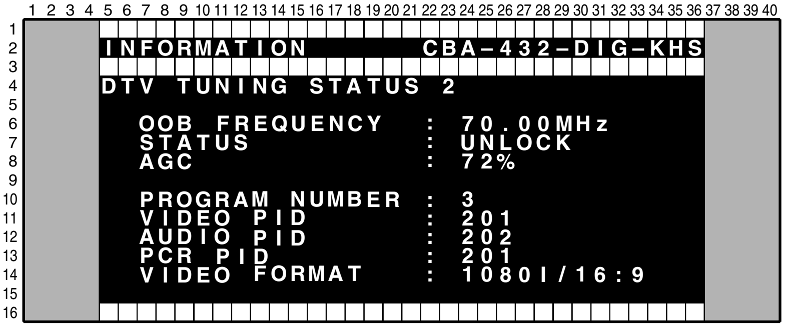
```
INFORMATION        VD1-131-NTV-JHS

HDMI SIGNAL INFO 2

   0x60 -3A:00        0x68 -06:00
        -3B:00             -07:00
        -3C:00             -08:00
        -3D:00             -0C:00
                           -0D:00
                           -0E:00
```

For technical discussion

14.DTV TUNING STATUS

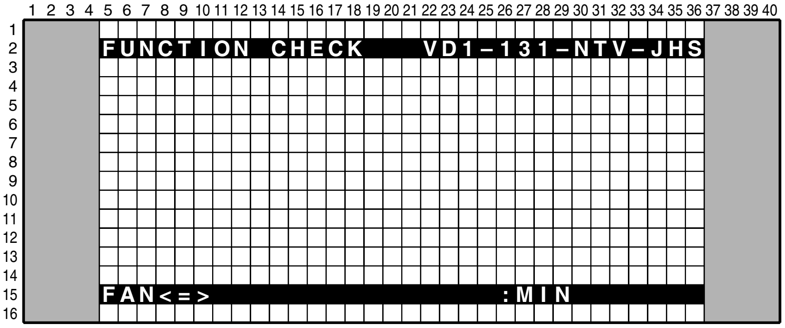


```
INFORMATION        CBA-432-DIG-KHS

DTV TUNING STATUS 1

  INBAND FREQUENCY   : 675MHz
  MODULATION         : QAM 256
  STATUS             : LOCK
  AGC                : 85%

  CORRECTED ERROR    : 12345
  UNCORRECTED ERROR  : 678
  TIME               : 45sec
```



```
INFORMATION        CBA-432-DIG-KHS

DTV TUNING STATUS 2

  OOB FREQUENCY   : 70.00MHz
  STATUS          : UNLOCK
  AGC             : 72%

  PROGRAM NUMBER  : 3
  VIDEO PID       : 201
  AUDIO PID       : 202
  PCR PID         : 201
  VIDEO FORMAT    : 1080I/16:9
```

② FUNCTION CHECK



No last memory in this menu

No.	Display	Detail	Remarks	232C Command
1	FAN <=>	MIN ⇔ CNT ⇔ MAX		*1
2	AFT <=>	UNLOCKED ⇔ LOCKED	For Factory use	AFT

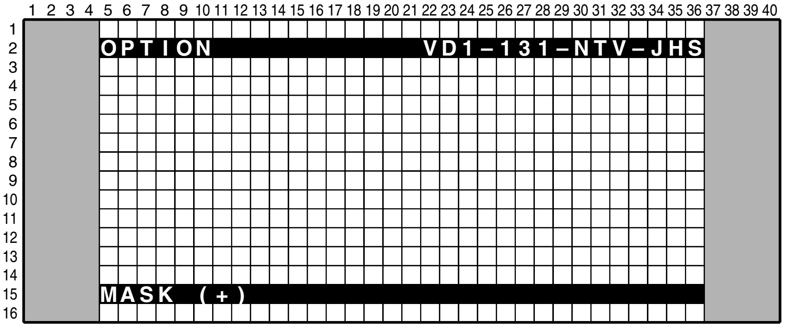
2.1 FAN

Controls FAN speed by force. (MIN : STOP, CNT : Follows movement specifications, MAX : High)
Temp sensor is working only displaying data value in service factory mode.
After getting off service factory mode, this function is set to normal automatically.

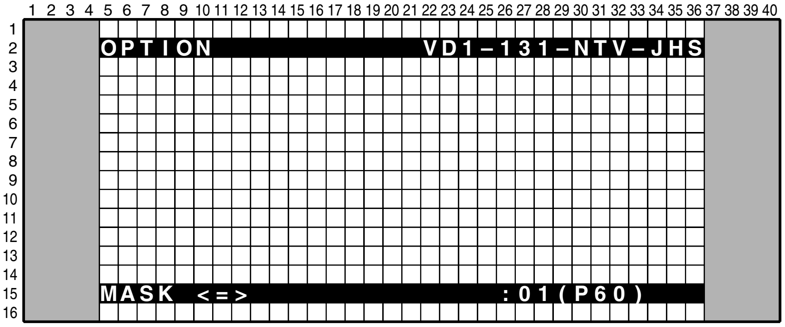
2.2 AFT LOCK

For production line use only
Stop AFT tuner received function and receive a center frequency.
After turning off a unit (including stand-by mode), this setting is set normal (AFT function) automatically.
It's performed to two tuner and DTV tuner to U.S. model.

⑤ OPTION mode



No.	Function/Display	Content	Corresponding RS-232C Command
1	MASK (+)	Selecting the pattern mask of IC4	MSK
2	PEAK LIMITTER	ON ⇔ OFF	PLT
3	DYNAMIC RANGE	ON ⇔ OFF	DYR
4	EDID WRITE MODE	DISABLE ⇔ ENABLE	EPA
5	CH PRESET	FACTORY ⇔ USER	



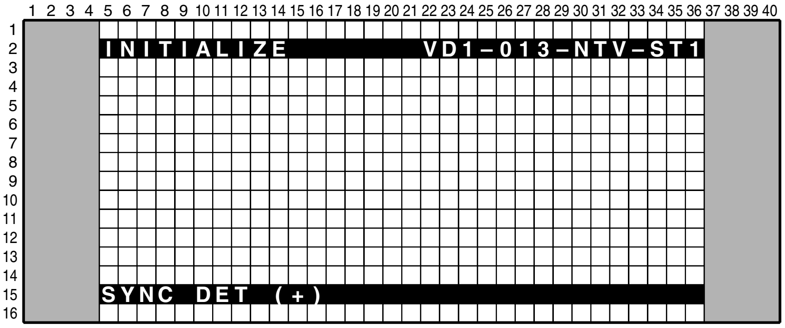
The mask frequency can be cyclically changed (see the table below) by pressing the left or right cursor key. The mask pattern can be cyclically changed by pressing the up or down cursor key. Approximately 2 seconds after either the up or down cursor key is pressed, the mask screen will appear.

- **Frequency selection while the mask is displayed**

No.	Function/Display	Content	Corresponding RS-232C Command
0	V50	Video 50-Hz sequence	F50
1	V60 (initial value)	Video 60-Hz sequence	F60
2	P60	PC 60-Hz sequence	F61
3	P70	PC 70-Hz sequence	F70
4	V72	Video 72-Hz sequence	F72
5	V75	Video 75-Hz sequence	F75

⑥ INITIALIZE mode

(For managing switching of the initial settings and destination setting)



INITIALIZE VD1−013−NTV−ST1

SYNC DET (+)

No.	Function/Display	Content
1	SYNC DET (+)	
2	DRIVE MODE (+)	
3	SIDE MASK LEVEL (+)	
4	PANEL REVICE (+)	
5	FINAL SETUP (+)	
6	C TEMP LOW (+)	
7	C TEMP MID LOW (+)	
8	C TEMP MID (+)	
9	C TEMP MID HIGH (+)	
10	C TEMP HIGH (+)	
11	UART SELECT <=>	1200-232C ⇔ ••• ⇔ 38400-232C ⇔ 9600-SR+
12	CVT AUTO <=>	DISABLE ⇔ ENABLE (For Factory use)
13	HDMI INTR POSITION(+)	
14	SUS FREQ MODE<=>	000⇔ ••• ⇔ 007

- When there is a modification log, if the “Display” key is held pressed for at least 3 seconds while the above display is displayed, the modification log will be cleared.

• UART SELCT

Option No.	Function / Display	Operation / Control	Remarks
1 (initial setting)	9600-SR+	To set to SR+ (9600 BPS)	For switching external communication between RS-232C and SR+
2	1200-232C	To set to RS-232C (1200 BPS)	
3	2400-232C	To set to RS-232C (2400 BPS)	
4	4800-232C	To set to RS-232C (4800 BPS)	
5	9600-232C	To set to RS-232C (9600 BPS)	
6	19200-232C	To set to RS-232C (19200 BPS)	
7	38400-232C	To set to RS-232C (38400 BPS)	

Tips: How to change the SR+/RS-232C setting without entering Service Factory mode
Refer to "6.3 USING RS-232C COMMANDS".

6.8 LIST OF RS-232C COMMANDS

RS-232C commands can be used in Service Factory mode.
Before using RS-232C commands, it is necessary to change the factory presetting. See "6.3. USING RS-232C COMMANDS."

Command	Operation	Remarks
A		
ABL	Adjusting power consumption	
B		
BCP	Transmitting the backup data to the DIGITAL Assy	
BYG	BY GAIN	
C		
CHM	Clearing the hour meter	
CNG	Clearing MR NG information	
CPC	Clearing the power-on counter	
CPD	Clearing power-down information	
CPM	Clearing the pulse meter	
CSD	Clearing shutdown information	
D		
OSDS01	Turning on the on-screen display	While the OSDSOI command is in force, the duration of on-screen display is
OSDS00	Turning off the on-screen display	On-screen display is prohibited.
DRF	Turning off the power for the drive system	
DRN	Turning on the power for the drive system	
DW*	Decreasing the adjustment value by *	*: 1-9, 0 (0 means 10), or F (making the adjustment value the minimum)
E		
EDWS00	Prohibiting writing of EDID data	
EDWS01	Permitting writing of EDID data	
F		
F50	Video 50-Hz sequence	
F60	Video 60-Hz sequence	
F61	PC 60-Hz sequence	
F70	PC 70-Hz sequence	
F72	Video 72-Hz sequence	
F75	Video 75-Hz sequence	
FAJ	Determining the adjustment values for the unit	
FAY	Turning Service Factory mode on	
FAN	Turning Service Factory mode off	The GUI equivalent to that usually displayed when the power is turned on is displayed.
G		The GET-group commands are effective at any time, including during Standby mode.
GAJ	Obtaining the adjustment values for the panel	
GMM	Switching the gamma levels	Setting value: 000-007
GNG	Obtaining NG data of the MR	
GNM	Obtaining the serial No. of the MR	
GPC	Obtaining the P ON COUNTER value	
GPD	Obtaining power-down information	
GPR	Obtaining the PANEL REVISE data	
GPM	Obtaining the PULSE METER data	
GPW	Obtaining the PANEL W/B data	
GS1	Obtaining the version data for each device	
GS2	Obtaining data on various operations	
GS6	Obtaining the any version	
GSD	Obtaining shutdown information	
GSL	Adjusting side mask G	

Command	Operation	Remarks
I		
INPS01	Input selection: Input 1	
INPS02	Input selection: Input 2	
INPS03	Input selection: Input 3	
INPS04	Input selection: Input 4	
INPS05	Input selection: Input 5	
INA	Selection of the tuner for terrestrial analog signals (Antenna A)	
INB	Selection of the tuner for terrestrial analog signals (Antenna B)	
ING	Selection of iLink input functions	
M		
MSKS00	Mask mode: OFF	
MSKS01	White: 0-100%	
MSKS02	Aging mask	
MSKS03	Aging mask (detection of still picture: OFF)	
MSKS10	RAMP slant 1	
MSKS11	RAMP slant 4	
MSKS12	RAMP slant 1 shifting	
MSKS13	RAMP slant 4 shifting	
MSKS14	V RAMP	
MSKS15	H/V RAMP	
M1G	IC1 MAIN GAIN	
M1O	IC1 MAIN OFFSET	
MSKS20	WINDOW-Low: 102 / High: 870	
MSKS21	WINDOW-Low: 102 / High: 1023	
MSKS22	WINDOW-Low: 0 / High: 1023	
MSKS23	WINDOW-High: 1023 (CENTER)	
MSKS24	WINDOW-PEAK WINDOW	Area 1.25%
MSKS25	WINDOW-1/7 vertical window	
MSKS26	WINDOW-magenta/green stripe	
MSKS27	WINDOW-green/magenta stripe	
MSKS28	Window (black & white [1 × 8], checkered pattern [for EMG check])	
MSKS29	Window (for W/B adjustment, magenta, yellow)	
MSKS40	Wiper to prevent phosphor burn	
MSKS30	COLOR BAR	
MSKS31	Slanted lines	
MSKS51	Raster-white	
MSKS52	Raster-red	
MSKS53	Raster-green	
MSKS54	Raster-blue	
MSKS55	Raster-black	
MSKS56	Raster-cyan	
MSKS57	Raster-magenta	
MSKS58	Raster-yellow	
MSKS59	Raster-cyan 274	
MSKS60	Raster-50 flesh color	
MSKS61	Raster-50 light purple	
MSKS62	Raster-50 sky blue	
MSKS63	Raster-red 779	
MSKS64	Raster-cyan 218	
MSKS65	Raster-cyan 448	
MSKS66	Raster-43 flesh color	
MSKS67	Raster-red 640	
MSKS68	Raster-magenta 98	
MSKS69	Raster-43 sky blue 1	
MSKS70	Raster-43 sky blue 2	
MSKS71	Raster-43 light purple	
MSKS72	Raster-blue 960	
MSKS73	Raster-gray 511 (spare)	
MSKS74	Raster-gray 511 (spare)	

Command	Operation	Remarks
M		
MRG	AD MAIN R GAIN	
MRO	AD MAIN R OFFSET	
MGG	AD MAIN G GAIN	
MGO	AD MAIN G OFFSET	
MBG	AD MAIN B GAIN	
MBO	AD MAIN B OFFSET	
P		
PBH	Panel W/B B-HIGH adjustment	
PBL	Panel W/B B-LOW adjustment	
PGH	Panel W/B G-HIGH adjustment	
PGL	Panel W/B G-LOW adjustment	
POF	Turning the power OFF	
PRH	Panel W/B R-HIGH adjustment	
PRL	Panel W/B R-LOW adjustment	
R		
RYG	RY GAIN	
RSL	Adjustment of side mask R	
S		
S1G	IC1 SUB GAIN	
S1O	IC1 SUB OFFSET	
SBG	AD SUB B GAIN	
SBO	AD SUB B OFFSET	
SFI	Initialization of the full mask table	
SGG	AD SUB G GAIN	
SGO	AD SUB G OFFSET	
SRG	AD SUB R GAIN	
SRO	AD SUB R OFFSET	
T		
TSY	Enabling the TRAP switch	The command is effective even during Standby mode.
U		
UP*	Increasing the adjustment value by *	*: 1-9, 0 (0 means 10), or F (making the adjustment value the maximum)
UAJ	Resetting all data in the DIGITAL Assy to those of a new service part	
V		
VOF	Offset voltage adjustment	
VSU	SUS voltage adjustment	
X		
XD1	D1 trailing-edge pulse of X-SUS	
XD2	D2 trailing-edge pulse of X-SUS	
XU1	U1 leading-edge pulse of X-SUS	
XU2	U2 leading-edge pulse of X-SUS	
Y		
YD1	D1 trailing-edge pulse of Y-SUS	
YD2	D2 trailing-edge pulse of Y-SUS	
YD3	D3 trailing-edge pulse of Y-SUS	
YD4	D4 trailing-edge pulse of Y-SUS	
YU1	U1 leading-edge pulse of Y-SUS	
YU2	U2 leading-edge pulse of Y-SUS	

6.9 OUTLINE OF COMMANDS

■ GET Commands

GS1: Returning information on the model and the version of the software

Order	Data	Size
1	Data on the display	3 bytes
2	Version of the module microcomputer	4 bytes
3	Version of the IC4-MANTA	4 bytes
4	Sequence version (50VIDEO)	4 bytes
5	Sequence version (50PC)	4 bytes
6	Sequence version (43VIDEO)	4 bytes
7	Sequence version (43PC)	4 bytes
8	Version of the IF microcomputer	4 bytes
9	Version of the main microcomputer boot Software	4 bytes
10	Version of the main microcomputer	4 bytes
11	Version of the IC3 boot Software	4 bytes
12	Version of the IC3 Program	4 bytes
13	Version of the IC3 Enhanced	4 bytes
14	Version of the IC3 GUI	4 bytes

Breakdown of the data on the display

Data	Model
HD5	PDP-505HD series
HD4	PDP-435HD series

GPM: Returning the data of the PDP pulse meter

Order	Data	Size
1	Pulse meter (Block area 1)	10 bytes
2	Pulse meter (Block area 2)	10 bytes
3	Pulse meter (Block area 3)	10 bytes
4	Pulse meter (Block area 4)	10 bytes
5	Pulse meter (Block area 5)	10 bytes

Note: Refer to the service manual of the panel.

GPC: Returning the cumulative number of times the power to the PDP was turned on

Order	Data	Size
1	Power-on counter	8 bytes

• Commands for clearing the logs

Parameter	Corresponding RS-232C Command
PD INFO	CPD
SD INFO	CSD
NG INFO	CNG
HOUR METER	CHM
MR HOUR METER (Only for the system model)	CHR
PULSE METER	CPM
P ON COUNTER	CPC

GPD: Returning the power-down data (log) of the PDP

Order	Data	Size	Order	Data	Size
1	Latest "1st PD" data	1 byte	17	Fifth latest “1st PD” data	1 byte
2	Latest "2nd PD" data	1 byte	18	Fifth latest “2nd PD” data	1 byte
3	Data of hour meter for the latest PD	7 bytes	19	Data of hour meter for the fifth latest PD	7 bytes
4	Data on temperature for the latest PD (TEMP1)	3 bytes	20	Data on temperature for the fifth latest PD (TEMP1)	3 bytes
5	Second latest “1st PD” data	1 byte	21	Sixth latest “1st PD” data	1 byte
6	Second latest “2nd PD” data	1 byte	22	Sixth latest “2nd PD” data	1 byte
7	Data of hour meter for the second latest PD	7 bytes	23	Data of hour meter for the sixth latest PD	7 bytes
8	Data on temperature for the second latest PD (TEMP1)	3 bytes	24	Data on temperature for the sixth latest PD (TEMP1)	3 bytes
9	Third latest “1st PD” data	1 byte	25	Seventh latest “1st PD” data	1 byte
10	Third latest “2nd PD” data	1 byte	26	Seventh latest “2nd PD” data	1 byte
11	Data of hour meter for the third latest PD	7 bytes	27	Data of hour meter for the seventh latest PD	7 bytes
12	Data on temperature for the third latest PD (TEMP1)	3 bytes	28	Data on temperature for the seventh latest PD (TEMP1)	3 bytes
13	Fourth latest “1st PD” data	1 byte	29	Eighth latest “1st PD” data	1 byte
14	Fourth latest “2nd PD” data	1 byte	30	Eighth latest “2nd PD” data	1 byte
15	Data of hour meter for the fourth latest PD	7 bytes	31	Data of hour meter for the eighth latest PD	7 bytes
16	Data on temperature for the fourth latest PD (TEMP1)	3 bytes	32	Data on temperature for the eighth latest PD (TEMP1)	3 bytes

- **Details on "1st/2nd PD" data**

Data	Power-down Point
0	No power-down
1	Not used (for MR-POWER)
2	P-POWER
3	SCAN
4	SCN-5V
5	Y-DRIVE
6	Y-DCDC
7	Y-SUS
8	ADRS
9	X-DRIVE
A	X-DCDC
B	X-SUS
C	DIG-DCDC
D	IC4
F	Power-down point not identified

GSD: Returning the shutdown data (log) of the PDP

Order	Data	Size	Order	Data	Size
1	Latest SD data	1 byte	17	Fifth latest SD data	1 byte
2	Data of subcategory for the latest SD	1 byte	18	Data of subcategory for the fifth latest SD	1 byte
3	Data of hour meter for the latest SD	7 bytes	19	Data of hour meter for the fifth latest SD	7 bytes
4	Data on temperature for the latest SD (TEMP1)	3 bytes	20	Data on temperature for the fifth latest SD (TEMP1)	3 bytes
5	Second latest SD data	1 byte	21	Sixth latest SD data	1 byte
6	Data of subcategory for the second latest SD	1 byte	22	Data of subcategory for the sixth latest SD	1 byte
7	Data of hour meter for the second latest SD	7 bytes	23	Data of hour meter for the sixth latest SD	7 bytes
8	Data on temperature for the second latest SD (TEMP1)	3 bytes	24	Data on temperature for the sixth latest SD (TEMP1)	3 bytes
9	Third latest SD data	1 byte	25	Seventh latest SD data	1 byte
10	Data of subcategory for the third latest SD	1 byte	26	Data of subcategory for the seventh latest SD	1 byte
11	Data of hour meter for the third latest SD	7 bytes	27	Data of hour meter for the seventh latest SD	7 bytes
12	Data on temperature for the third latest SD (TEMP1)	3 bytes	28	Data on temperature for the seventh latest SD (TEMP1)	3 bytes
13	Fourth latest SD data	1 byte	29	Eighth latest SD data	1 byte
14	Data of subcategory for the fourth latest SD	1 byte	30	Data of subcategory for the eighth latest SD	1 byte
15	Data of hour meter for the fourth latest SD	7 bytes	31	Data of hour meter for the eighth latest SD	7 bytes
16	Data on temperature for the fourth latest SD (TEMP1)	3 bytes	32	Data on temperature for the eighth latest SD (TEMP1)	3 bytes

• Details on the shutdown data

Data	Cause of Shutdown
0	No abnormality
1	IC4 (IC5401)
2	Module microcomputer IIC
3	Abnormality in RST2 (power decrease of DC-DC converter)
4	Panel having abnormally high temperature
5	Audio failure (short-circuiting of the speakers)
6 - F	Spares

• Data on the shutdown subcategories for the module microcomputer IIC

Data	Cause of Shutdown
0	No subcategory
1	EEPROM (4k) (IC5206)
2	EEPROM (2k) (IC4002)
3	Volume IC (IC3502)

GNG: Returning the data (logs) on power-down and shutdown of the Media Receiver

Order	Data	Size	Order	Data	Size
1	Latest NG data	1 byte	17	Fifth latest NG data	1 byte
2	Data of subcategory for the latest NG	1 byte	18	Data of subcategory for the fifth latest NG	1 byte
3	Data of MR hour meter for the latest NG	7 bytes	19	Data of MR hour meter for the fifth latest NG	7 bytes
4	Data on temperature for the latest NG (TEMP2)	3 bytes	20	Data on temperature for the fifth latest NG (TEMP2)	3 bytes
5	Second latest NG data	1 byte	21	Sixth latest NG data	1 byte
6	Data of subcategory for the second latest NG	1 byte	22	Data of subcategory for the sixth latest NG	1 byte
7	Data of MR hour meter for the second latest NG	7 bytes	23	Data of MR hour meter for the sixth latest NG	7 bytes
8	Data on temperature for the second latest NG (TEMP2)	3 bytes	24	Data on temperature for the sixth latest NG (TEMP2)	3 bytes
9	Third latest NG data	1 byte	25	Seventh latest NG data	1 byte
10	Data of subcategory for the third latest NG	1 byte	26	Data of subcategory for the seventh latest NG	1 byte
11	Data of MR hour meter for the third latest NG	7 bytes	27	Data of MR hour meter for the seventh latest NG	7 bytes
12	Data on temperature for the third latest NG (TEMP2)	3 bytes	28	Data on temperature for the seventh latest NG (TEMP2)	3 bytes
13	Fourth latest NG data	1 byte	29	Eighth latest NG data	1 byte
14	Data of subcategory for the fourth latest NG	1 byte	30	Data of subcategory for the eighth latest NG	1 byte
15	Data of MR hour meter for the fourth latest NG	7 bytes	31	Data of MR hour meter for the eighth latest NG	7 bytes
16	Data on temperature for the fourth latest NG (TEMP2)	3 bytes	32	Data on temperature for the eighth latest NG (TEMP2)	3 bytes

- **Details on the NG data**

Data	Cause of Shutdown
0	No abnormality
1	Power-down of the MR power supply
2	Communication failure of the module microcomputer
3	Three-wire serial communication failure of the main microcomputer
4	IIC communication failure of the main microcomputer
5	Communication failure of the main microcomputer
6	MR having abnormally high temperature
7	Fan stopped
8	Failure of the UART communication
9	Abnormality in RST2 of the MR (power decrease of DC-DC converter)

- **Data on the subcategories for failure in 3-wire serial communication of the main microcomputer**

Data	Cause of Shutdown
0	No subcategory
1	Communication failure of the IF microcomputer
2	IC2 communication failure
3	IC3 communication failure

- **Data on the subcategories for failure in the digital tuner**

Data	Cause of Shutdown
0	No subcategory (DTV for North America)
1	Communication failure of the DTV microcomputer (PS/RST)
2	DTV NG (DEVICE)
3	DTV microcomputer (CMD)
4	DTV microcomputer communication (RETRY)
5	PC CARD Communication NG (CD-COM)
6	PC CARD Mdule (CD-DEV)
7	PC CARD Reset NG (CD-RST)

- **Data on the subcategories for failure in IIC communication of the main microcomputer**

Data	Cause of Shutdown
0	No subcategory
1	EEPROM (128k) (IC7205)
2	GCR (Only domestic model)
3	IC1 main (IC6107)
4	IC1 sub (IC6255)
5	AD-PLL main (IC6402)
6	AD-PLL sub (IC6602)
7	IC6 (IC6951)
8	HDMI1(IC6801)
9	HDMI2(IC6881)
A	7-3VIDEO SW (IC8002)
B	6-2RGB SW (IC8005)
C	Front end 1 (U7501)
D	Front end 2 (U7502)
E	CC UCOM (IC8903)
F	PANEL LINK TX (IC7401)
G	PANEL LINK RX
H	Not used
I	Not used
K	AV-EEP ROM

GAJ: Returning drive-related adjustment values of the PDP

Order	Data	Size
1	Currently used ABL table	3 bytes
2	Upper limit of the electric power	3 bytes
3	Vsus adjustment value	3 bytes
4	Vofs adjustment value	3 bytes
5	X-SUS-U1 adjustment value (XU1)	3 bytes
6	X-SUS-U2 adjustment value (XU2)	3 bytes
7	X-SUS-D2 adjustment value (XD2)	3 bytes
8	X-SUS-D1 adjustment value (XD1)	3 bytes
9	Y-SUS-U1 adjustment value (YU1)	3 bytes
10	Y-SUS-U2 adjustment value (YU2)	3 bytes
11	Y-SUS-D1-2 adjustment value (YD2)	3 bytes
12	Y-SUS-D1-1 adjustment value (YD1)	3 bytes
13	Y-SUS-D2-2 adjustment value (YD4)	3 bytes
14	Y-SUS-D2-1 adjustment value (YD3)	3 bytes

Data	Table
AB1	ABL table for NTSC
AB2	ABL table for PAL
AB3	ABL table for PC

B

C

GPW: Returning RGB-level-related adjustment values of the PDP

Order	Data	Size
1	Panel W/B table currently used	3 bytes
2	Main contrast	4 bytes
3	Red contrast of the W/B adjustment value	4 bytes
4	Green contrast of the W/B adjustment value	4 bytes
5	Blue contrast of the W/B adjustment value	4 bytes
6	Main brightness	4 bytes
7	Red brightness of the W/B adjustment value	4 bytes
8	Green brightness of the W/B adjustment value	4 bytes
9	Blue brightness of the W/B adjustment value	4 bytes

Data	Table
PT1	ABL table for NTSC
PT2	ABL table for PAL
PT3	Reserved table

D

GS6: Returning information of the Flash Device

Order	Data	Size
1	Display Information	3 bytes
2	Version of the CCD UCOM	4 bytes
3	Version of the DTV Software	4 bytes
4	Version of the DTV Hardtware	2 bytes
5	Version of the DTV Hardtware Serial	6bytes
6	Not Used (Reserve)	56 bytes
7	User Password	4 bytes

E

F

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 TROUBLESHOOTING

- **Image for the composite or S signal is not displayed**

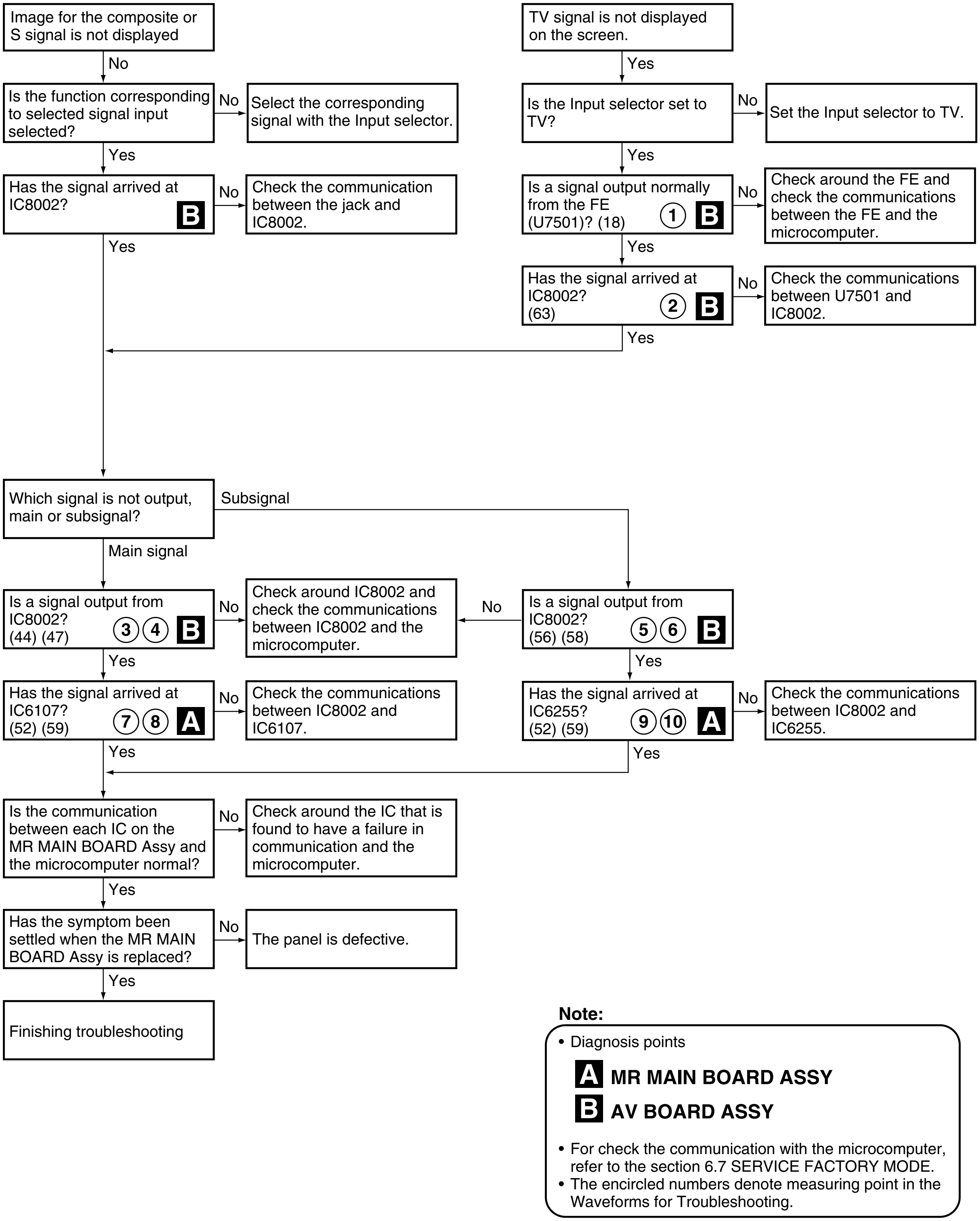


Image for the composite or S signal is not displayed
No
Is the function corresponding to selected signal input selected?
No
Select the corresponding signal with the Input selector.
Yes
Has the signal arrived at IC8002? B
No
Check the communication between the jack and IC8002.
Yes
TV signal is not displayed on the screen.
Yes
Is the Input selector set to TV?
No
Set the Input selector to TV.
Yes
Is a signal output normally from the FE (U7501)? (18) ① B
No
Check around the FE and check the communications between the FE and the microcomputer.
Yes
Has the signal arrived at IC8002? (63) ② B
No
Check the communications between U7501 and IC8002.
Yes
Which signal is not output, main or subsignal?
Subsignal
Main signal
Is a signal output from IC8002? (44) (47) ③ ④ B
No
Check around IC8002 and check the communications between IC8002 and the microcomputer.
No
Is a signal output from IC8002? (56) (58) ⑤ ⑥ B
Yes
Has the signal arrived at IC6107? (52) (59) ⑦ ⑧ A
No
Check the communications between IC8002 and IC6107.
Yes
Has the signal arrived at IC6255? (52) (59) ⑨ ⑩ A
No
Check the communications between IC8002 and IC6255.
Yes
Yes
Is the communication between each IC on the MR MAIN BOARD Assy and the microcomputer normal?
No
Check around the IC that is found to have a failure in communication and the microcomputer.
Yes
Has the symptom been settled when the MR MAIN BOARD Assy is replaced?
No
The panel is defective.
Yes
Finishing troubleshooting

Note:

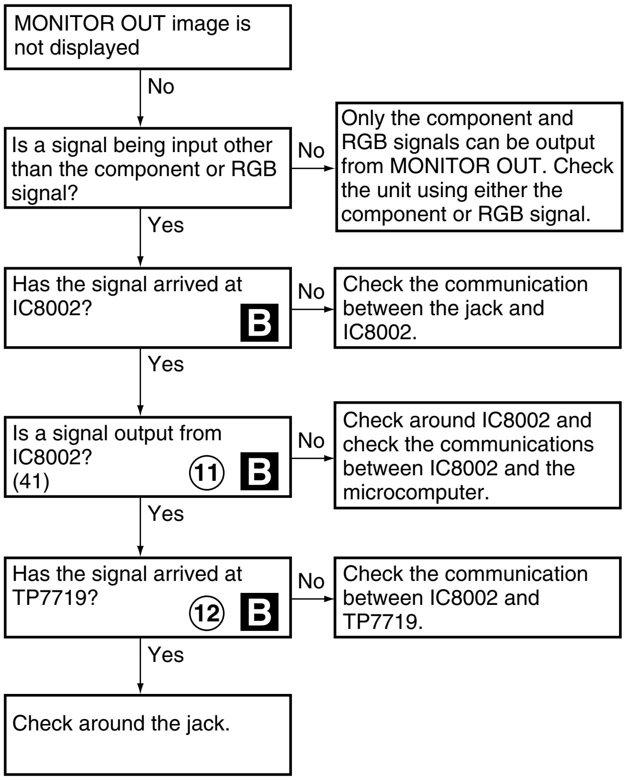
- Diagnosis points

A MR MAIN BOARD ASSY

B AV BOARD ASSY

- For check the communication with the microcomputer, refer to the section 6.7 SERVICE FACTORY MODE.
- The encircled numbers denote measuring point in the Waveforms for Troubleshooting.

● MONITOR OUT image is not displayed


MONITOR OUT image is not displayed
No
Is a signal being input other than the component or RGB signal?
No
Only the component and RGB signals can be output from MONITOR OUT. Check the unit using either the component or RGB signal.
Yes
Has the signal arrived at IC8002?
B
No
Check the communication between the jack and IC8002.
Yes
Is a signal output from IC8002? (41)
⑪
B
No
Check around IC8002 and check the communications between IC8002 and the microcomputer.
Yes
Has the signal arrived at TP7719?
⑫
B
No
Check the communication between IC8002 and TP7719.
Yes
Check around the jack.

● Image for the component or RGB signals is not displayed

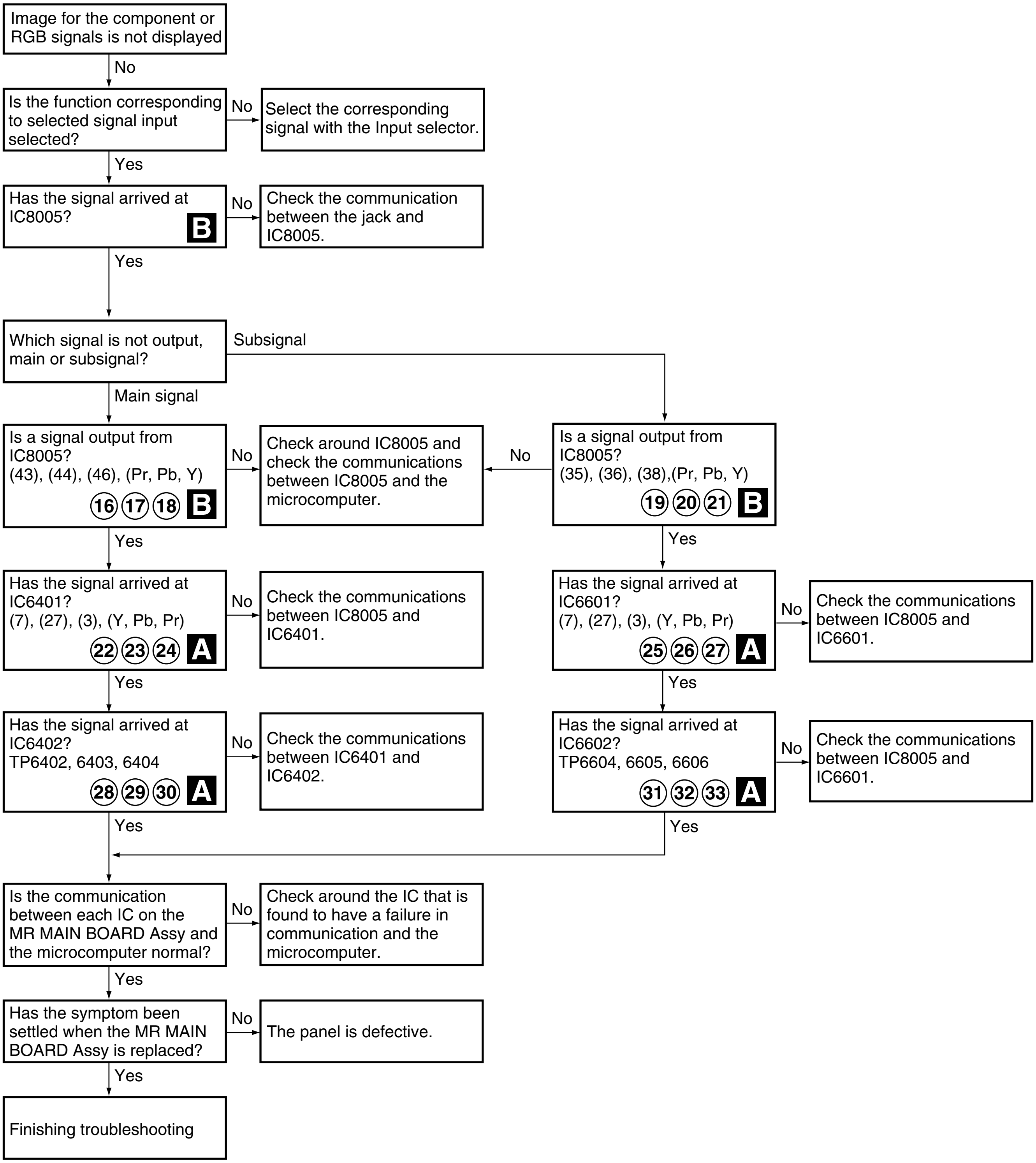
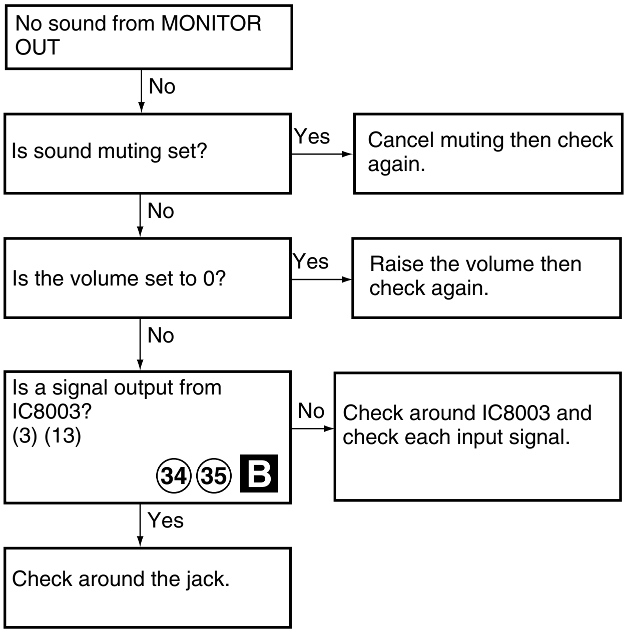
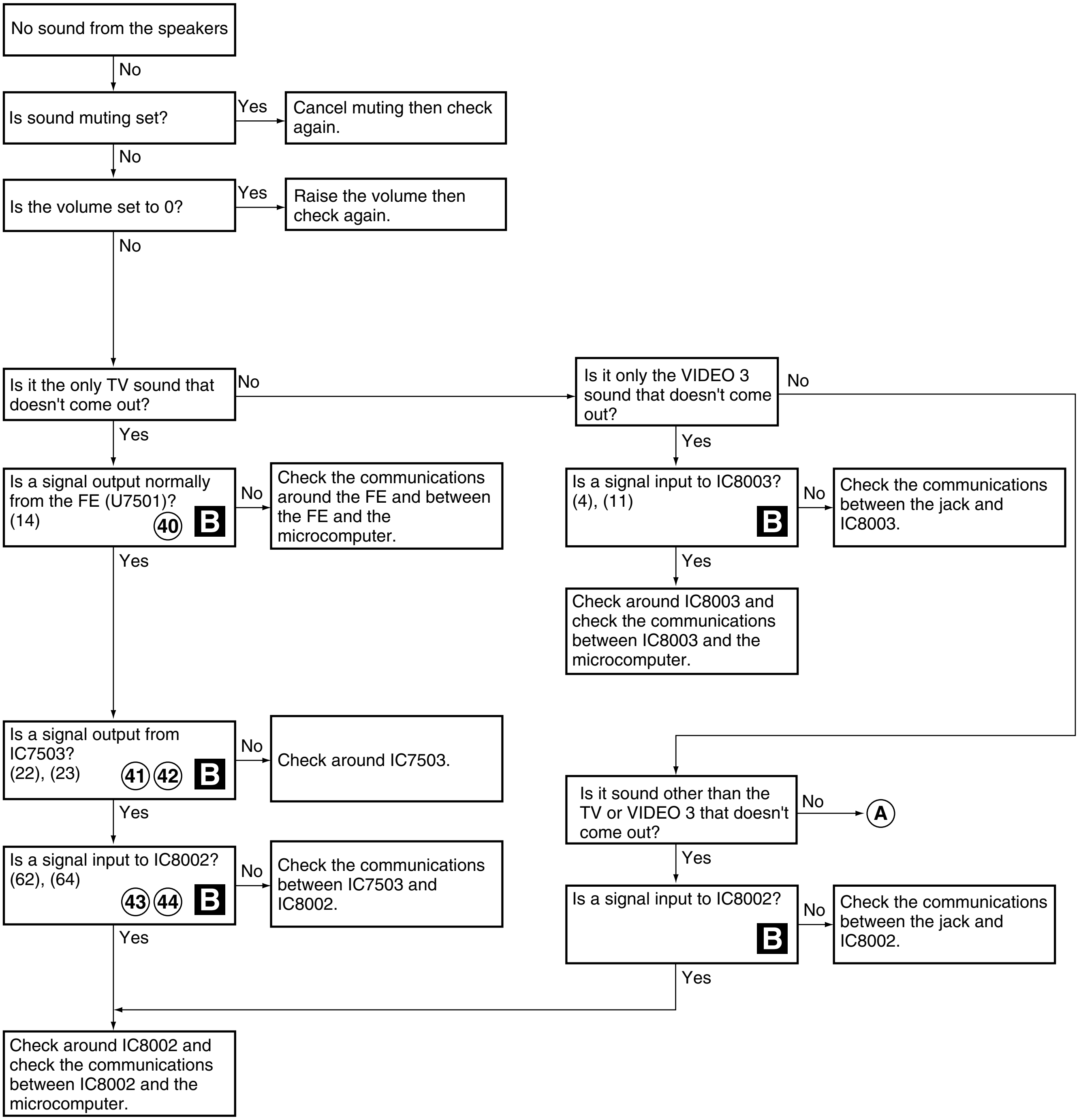


Image for the component or RGB signals is not displayed
No
Is the function corresponding to selected signal input selected?
No
Select the corresponding signal with the Input selector.
Yes
Has the signal arrived at IC8005? B
No
Check the communication between the jack and IC8005.
Yes
Which signal is not output, main or subsignal?
Subsignal
Main signal
Is a signal output from IC8005? (43), (44), (46), (Pr, Pb, Y) ⑯ ⑰ ⑱ B
No
Check around IC8005 and check the communications between IC8005 and the microcomputer.
No
Is a signal output from IC8005? (35), (36), (38),(Pr, Pb, Y) ⑲ ⑳ ㉑ B
Yes
Has the signal arrived at IC6401? (7), (27), (3), (Y, Pb, Pr) ㉒ ㉓ ㉔ A
No
Check the communications between IC8005 and IC6401.
Yes
Has the signal arrived at IC6601? (7), (27), (3), (Y, Pb, Pr) ㉕ ㉖ ㉗ A
No
Check the communications between IC8005 and IC6601.
Yes
Has the signal arrived at IC6402? TP6402, 6403, 6404 ㉘ ㉙ ㉚ A
No
Check the communications between IC6401 and IC6402.
Yes
Has the signal arrived at IC6602? TP6604, 6605, 6606 ㉛ ㉜ ㉝ A
No
Check the communications between IC8005 and IC6601.
Yes
Yes
Is the communication between each IC on the MR MAIN BOARD Assy and the microcomputer normal?
No
Check around the IC that is found to have a failure in communication and the microcomputer.
Yes
Has the symptom been settled when the MR MAIN BOARD Assy is replaced?
No
The panel is defective.
Yes
Finishing troubleshooting

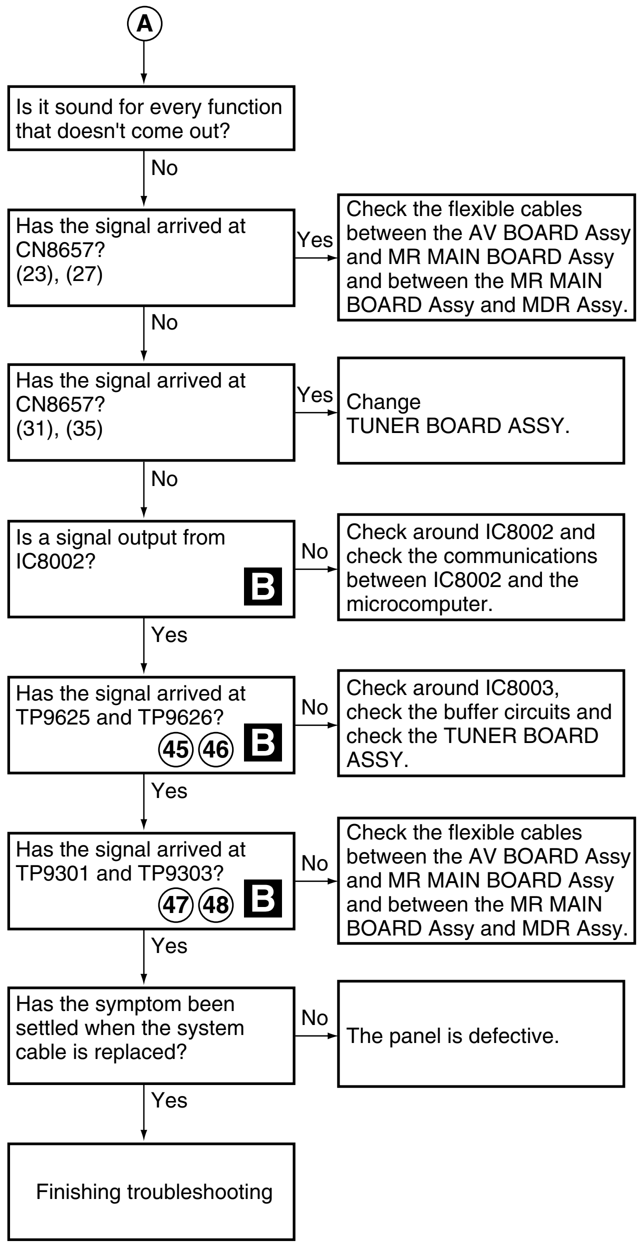
● No sound


No sound from MONITOR OUT
No
Is sound muting set?
Yes
Cancel muting then check again.
No
Is the volume set to 0?
Yes
Raise the volume then check again.
No
Is a signal output from IC8003?
(3) (13)
㉞ ㉟ B
No
Check around IC8003 and check each input signal.
Yes
Check around the jack.

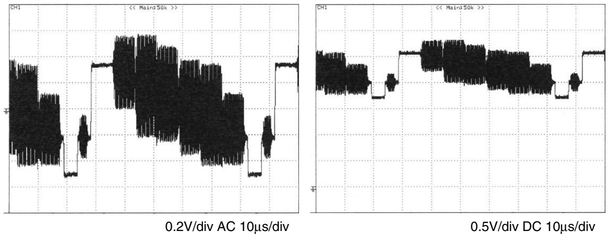
● No sound from the speakers (1/2)


No sound from the speakers
No
Is sound muting set?
Yes
Cancel muting then check again.
No
Is the volume set to 0?
Yes
Raise the volume then check again.
No
Is it the only TV sound that doesn't come out?
No
Is it only the VIDEO 3 sound that doesn't come out?
No
Yes
Is a signal output normally from the FE (U7501)? (14) 40 B
No
Check the communications around the FE and between the FE and the microcomputer.
Yes
Is a signal input to IC8003? (4), (11) B
No
Check the communications between the jack and IC8003.
Yes
Check around IC8003 and check the communications between IC8003 and the microcomputer.
Yes
Is a signal output from IC7503? (22), (23) 41 42 B
No
Check around IC7503.
Is it sound other than the TV or VIDEO 3 that doesn't come out?
No
A
Yes
Is a signal input to IC8002? (62), (64) 43 44 B
No
Check the communications between IC7503 and IC8002.
Yes
Is a signal input to IC8002? B
No
Check the communications between the jack and IC8002.
Yes
Yes
Check around IC8002 and check the communications between IC8002 and the microcomputer.

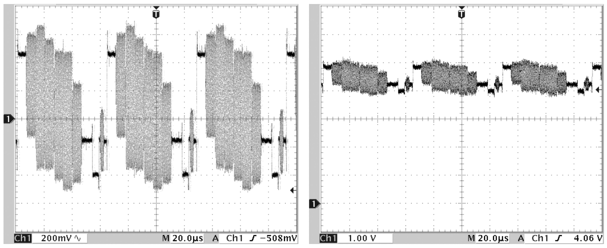
● No sound from the speakers (2/2)


A
Is it sound for every function that doesn't come out?
No
Has the signal arrived at CN8657? (23), (27)
Yes
Check the flexible cables between the AV BOARD Assy and MR MAIN BOARD Assy and between the MR MAIN BOARD Assy and MDR Assy.
No
Has the signal arrived at CN8657? (31), (35)
Yes
Change TUNER BOARD ASSY.
No
Is a signal output from IC8002?
B
No
Check around IC8002 and check the communications between IC8002 and the microcomputer.
Yes
Has the signal arrived at TP9625 and TP9626?
㊺ ㊻
B
No
Check around IC8003, check the buffer circuits and check the TUNER BOARD ASSY.
Yes
Has the signal arrived at TP9301 and TP9303?
㊼ ㊽
B
No
Check the flexible cables between the AV BOARD Assy and MR MAIN BOARD Assy and between the MR MAIN BOARD Assy and MDR Assy.
Yes
Has the symptom been settled when the system cable is replaced?
No
The panel is defective.
Yes
Finishing troubleshooting

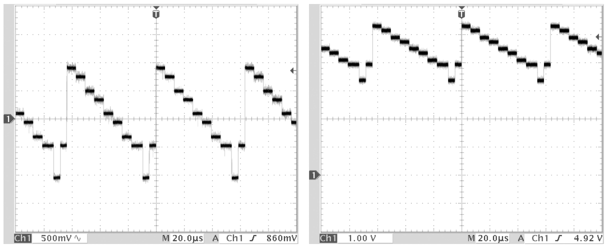
① U7501 - pin 18



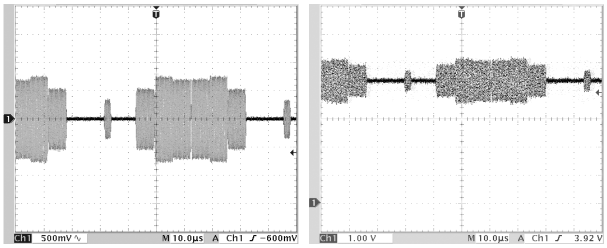
② IC8002 - pin 63



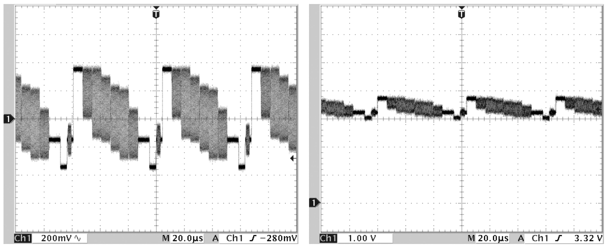
③ IC8002 - pin 44



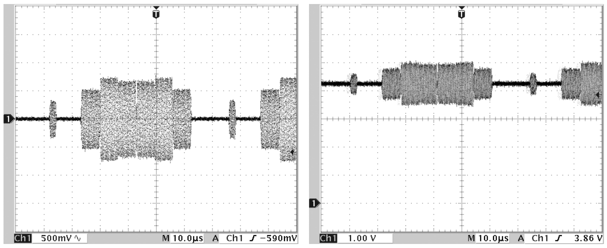
④ IC8002 - pin 47



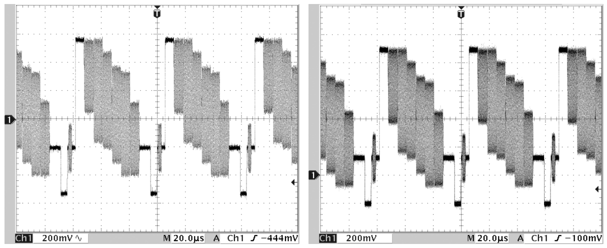
⑤ IC8002 - pin 56



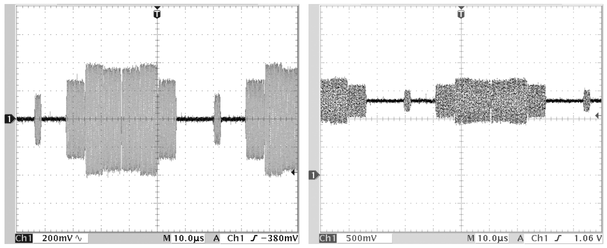
⑥ IC8002 - pin 58



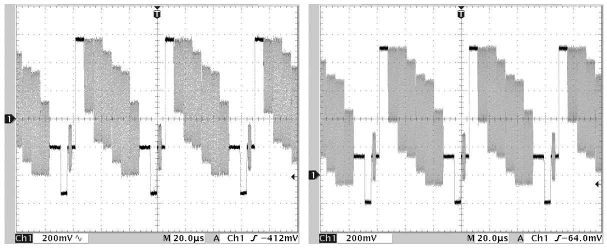
⑦ IC6107 - pin 52



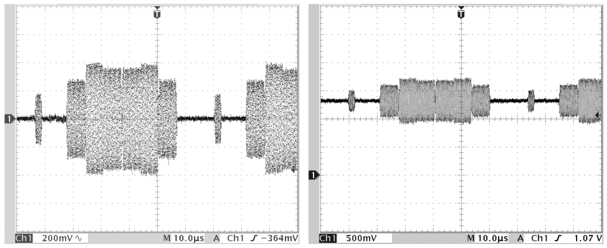
⑧ IC6107 - pin 59



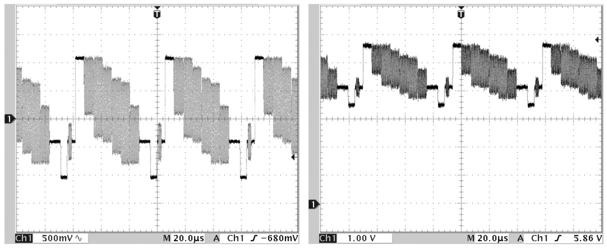
⑨ IC6255 - pin 52



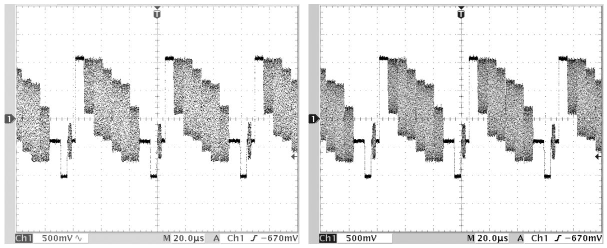
⑩ IC6255 - pin 59



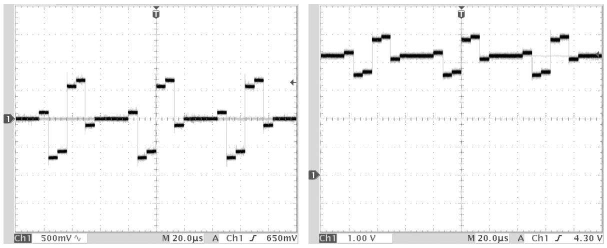
⑪ IC8002 - pin 41



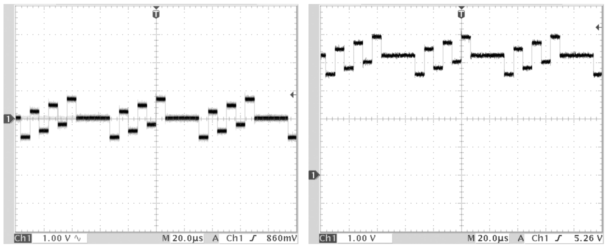
⑫ TP7719



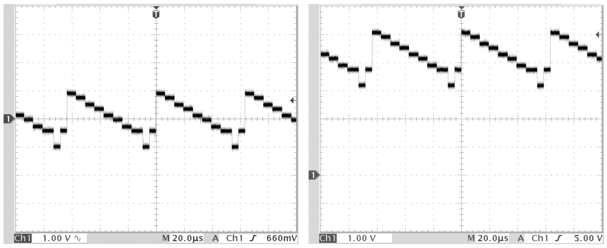
⑯ IC8005 - pin 43



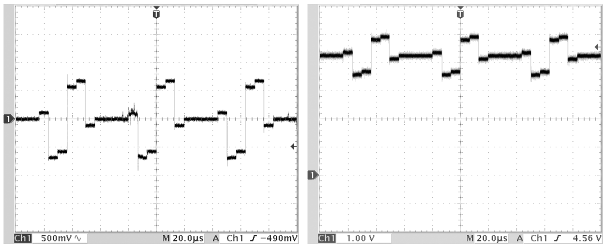
⑰ IC8005 - pin 44



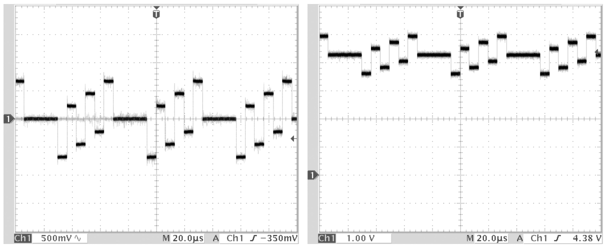
⑱ IC8005 - pin 46



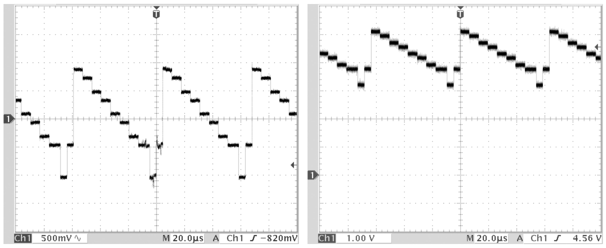
⑲ IC8005 - pin 35



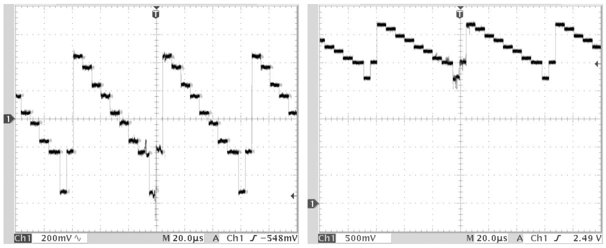
⑳ IC8005 - pin 36



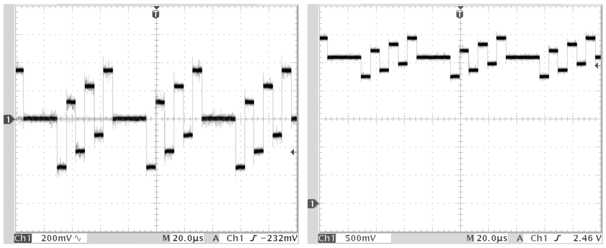
㉑ IC8005 - pin 38



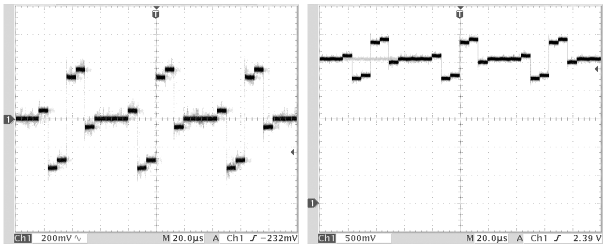
㉒ IC6401 - pin 7



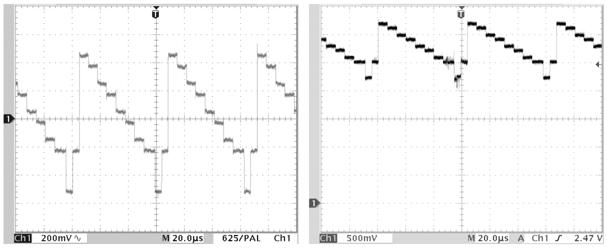
㉓ IC6401 - pin 27



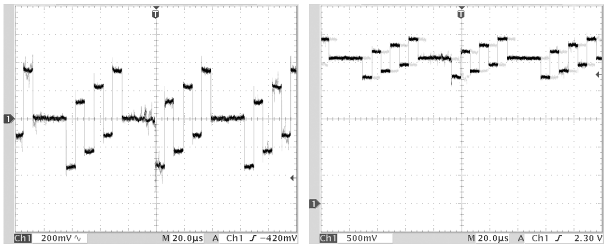
㉔ IC6401 - pin 3



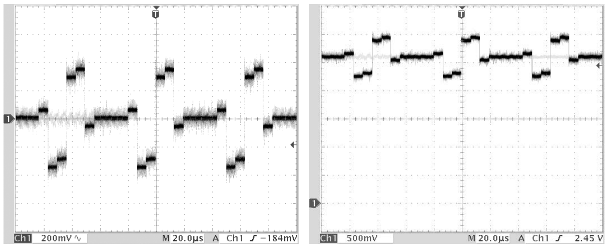
㉕ IC6601 - pin 7



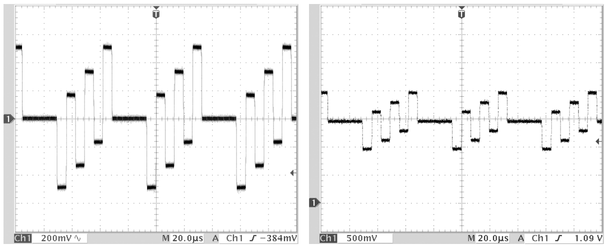
㉖ IC6601 - pin 27



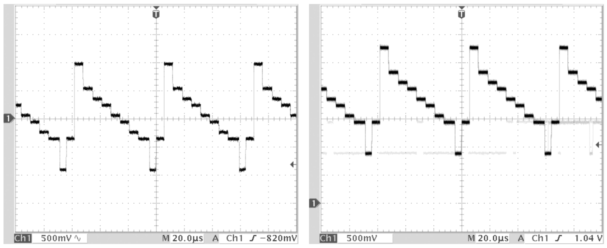
㉗ IC6601 - pin 3



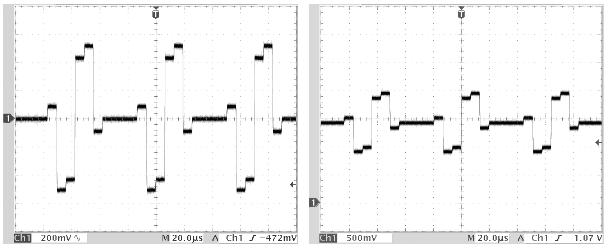
㉘ TP6402



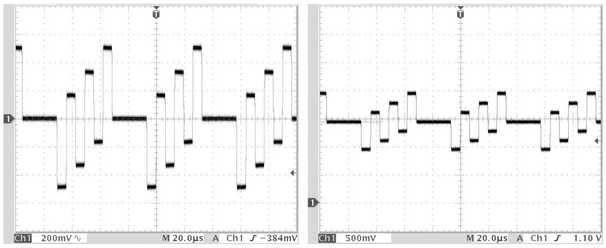
㉙ TP6403



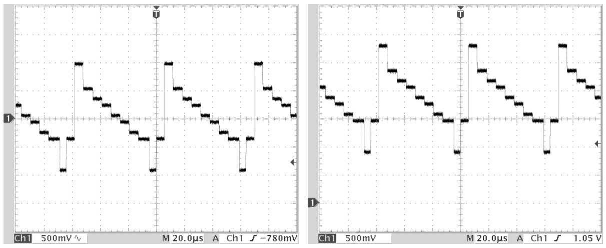
㉚ TP6404



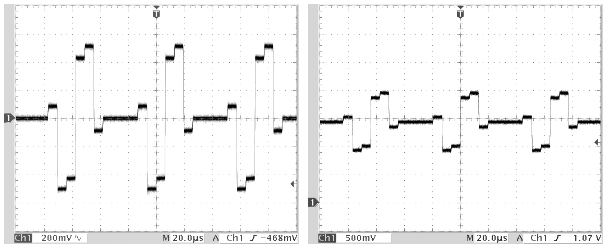
㉛ TP6604



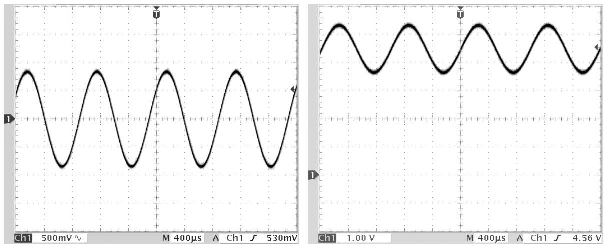
㉜ TP6605



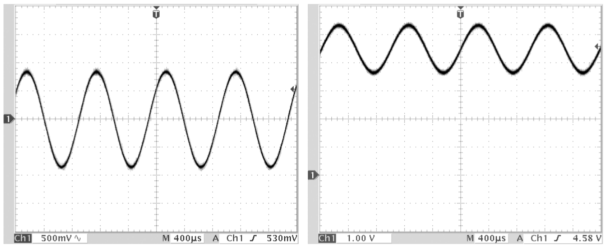
㉝ TP6606



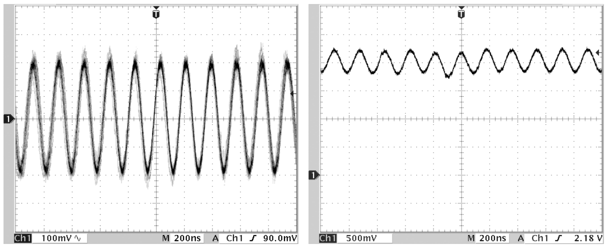
㉞ IC8003 - pin 3



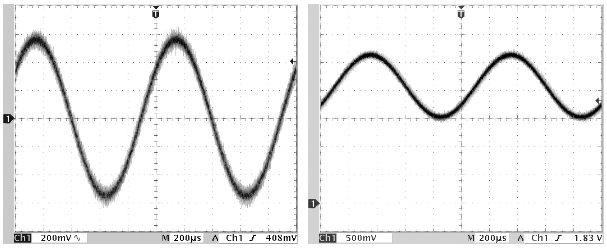
㉟ IC8003 - pin 13



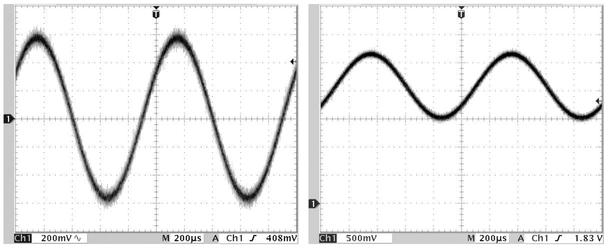
㊵ U7501 - pin 14



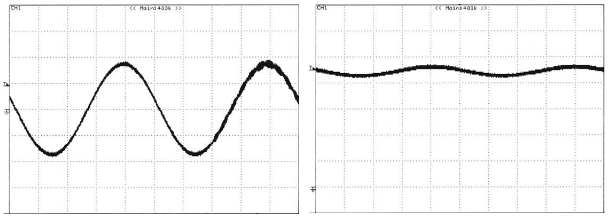
㊶ IC7503 - pin 22



㊷ IC7503 - pin 23

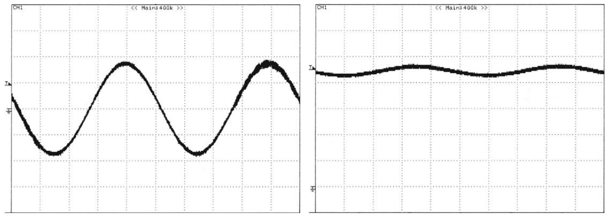


㊸ IC8002 - pin 62



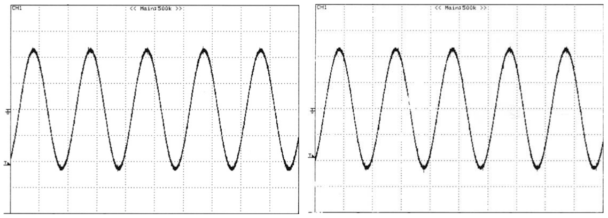
0.1V/div AC 200µs/div 1V/div DC 200µs/div

㊹ IC8002 - pin 64



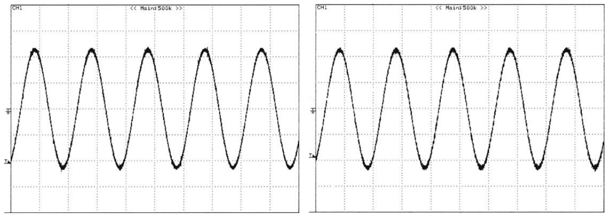
0.1V/div AC 200µs/div 1V/div DC 200µs/div

㊺ TP9625



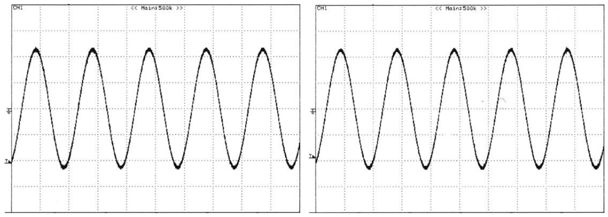
0.2V/div AC 500µs/div 0.2V/div DC 500µs/div

㊻ TP9626



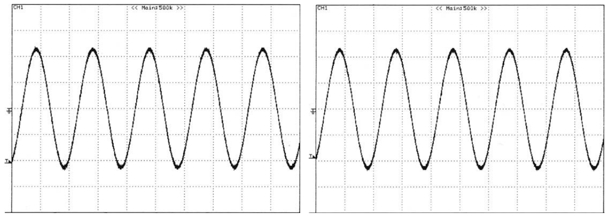
0.2V/div AC 500µs/div 0.2V/div DC 500µs/div

㊼ TP9301



0.2V/div AC 500µs/div 0.2V/div DC 500µs/div

㊽ TP9303



0.2V/div AC 500µs/div 0.2V/div DC 500µs/div

7.1.2 DISASSEMBLY

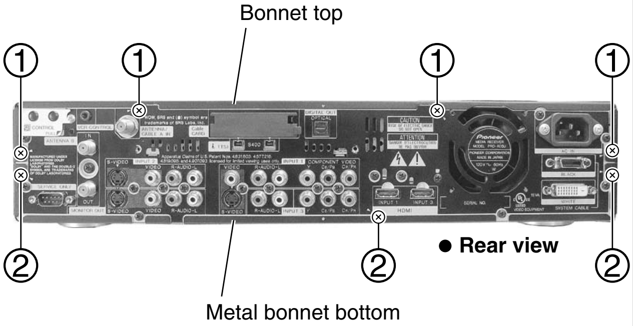
Note: Even if the unit shown in the photos and illustrations in this manual may differ from your product, the procedures described here are common.

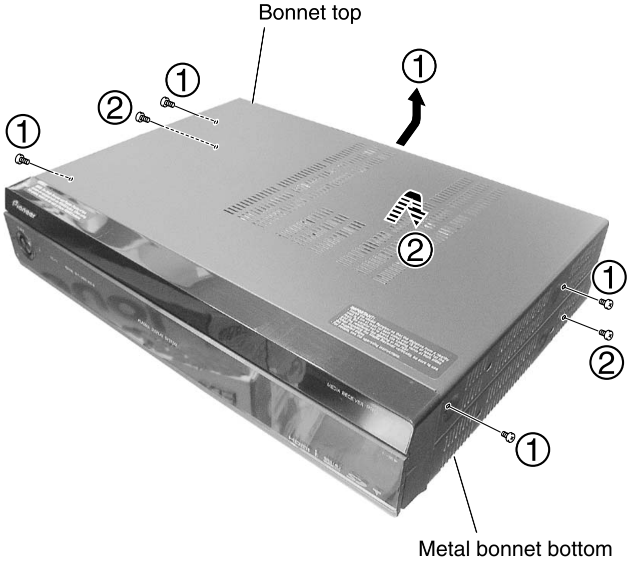
1 Bonnet top and metal bonnet bottom

① Remove the bonnet top by removing the eight screws.

② Remove the metal bonnet bottom by removing the five screws.

Caution :
Please remove it after pulling it in a rear direction because bonnet top and metal bonnet bottom are hard to reduce.


Bonnet top
①
①
①
①
②
②
②
● Rear view
Metal bonnet bottom


Bonnet top
①
①
②
①
①
②
①
②
①
Metal bonnet bottom

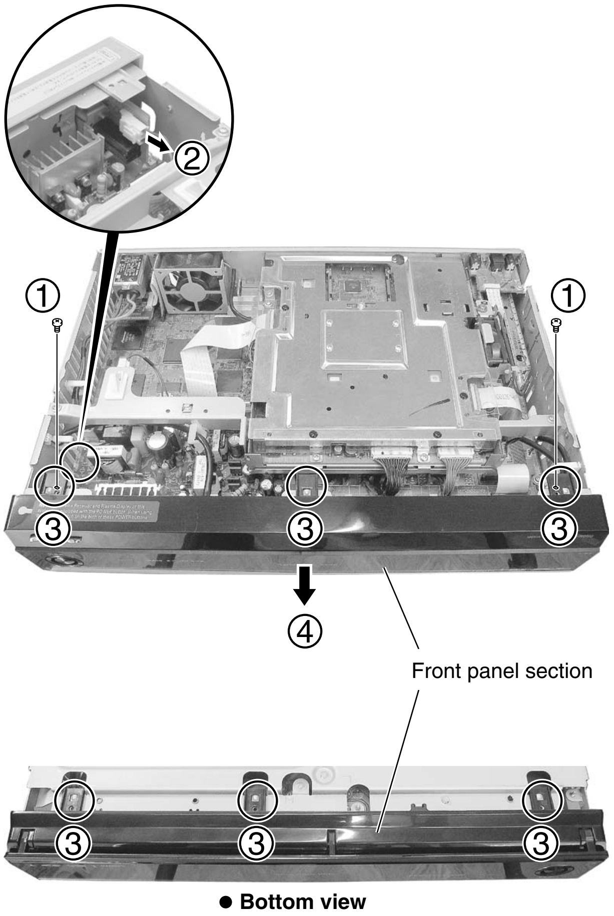
2 Front panel section

① Remove the two screws.

② Disconnect the one connector.

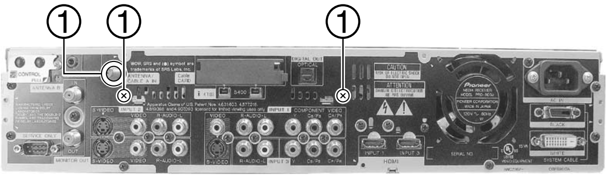
③ Unhook the six hooks.

④ Remove the front panel section.


②
①
①
③
③
③
④
Front panel section
③
③
③
③
③
③
● Bottom view

3 TUNER BOARD Assy (U)

① Remove the one washer and two screws.



● **Rear view**

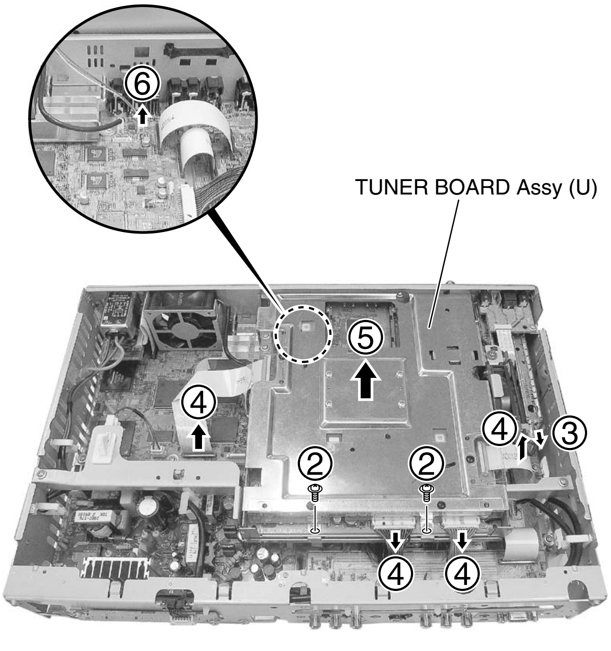
② Remove the two screws.

③ Disconnect the one plug cord.

④ Disconnect the two flexible cables and two connectors.

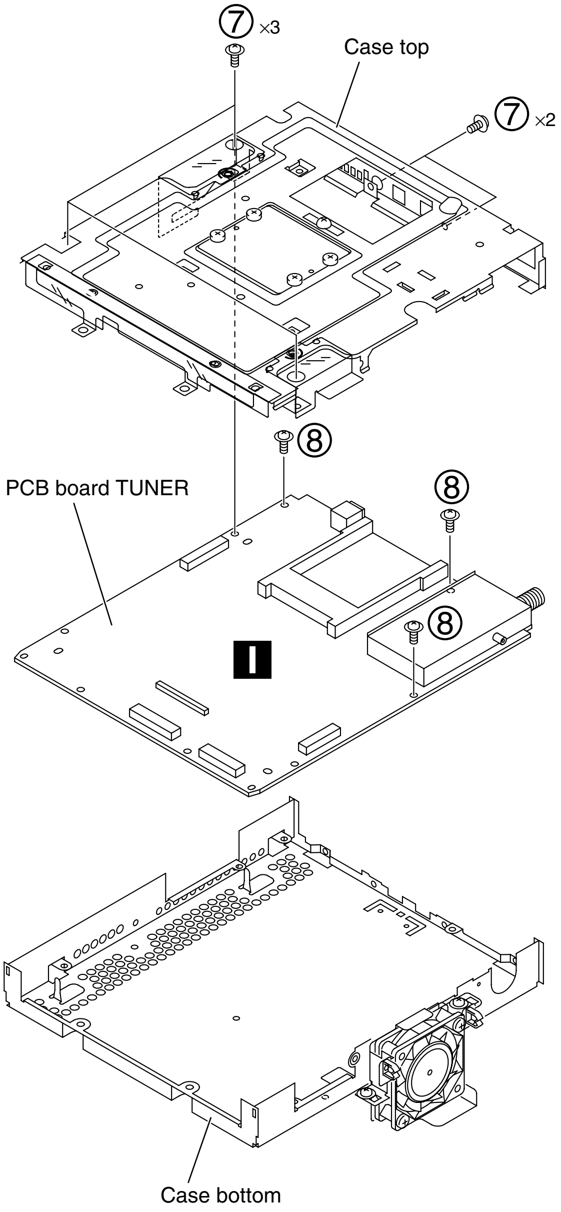
⑤ Remove the TUNER BOARD Assy (U).

⑥ Disconnect the one connector.


⑥
TUNER BOARD Assy (U)
⑤
④
④
③
②
②
④
④

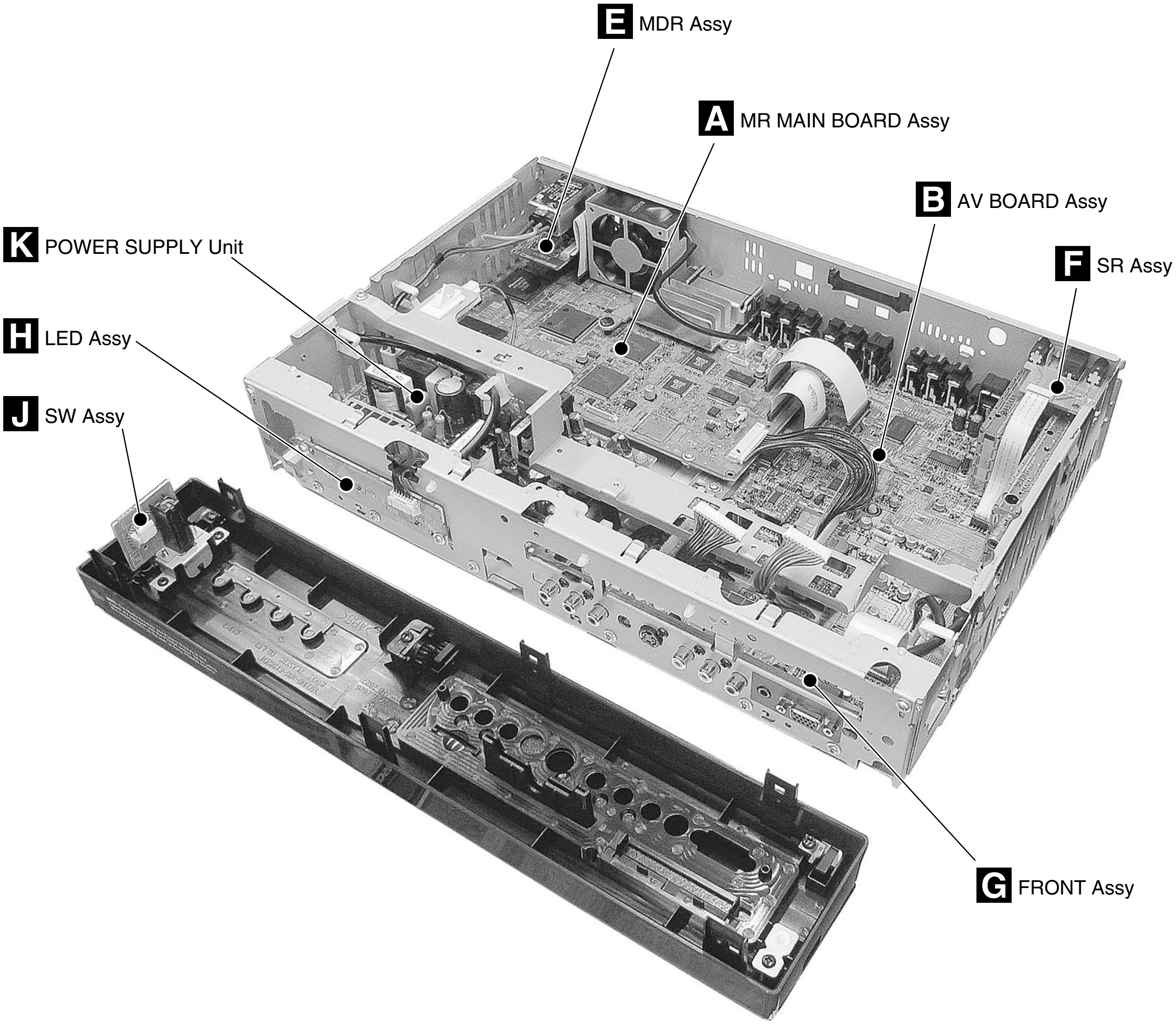
⑦ Remove the five screws.

⑧ Remove the three screws.


⑦ ×3
Case top
⑦ ×2
⑧
PCB board TUNER
⑧
⑧
I
Case bottom

A B C D E F

PCB Location

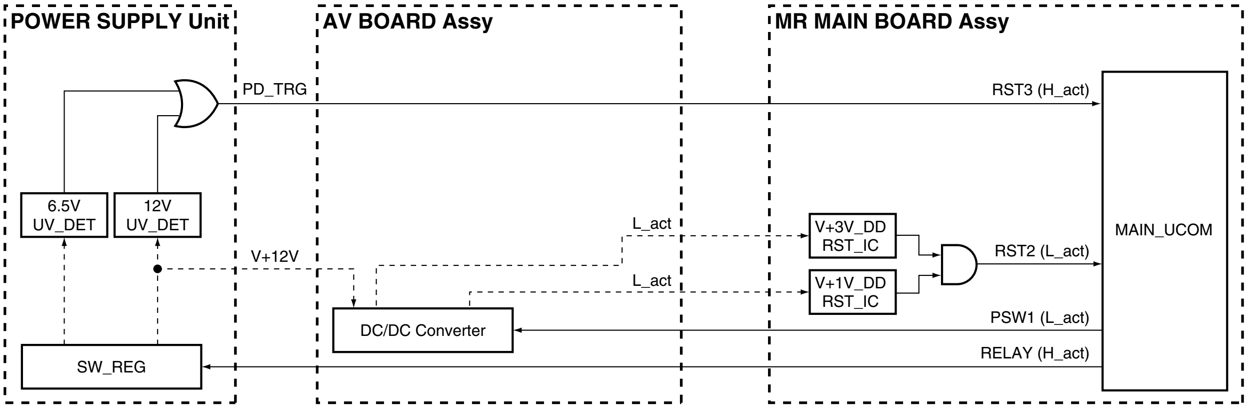

E MDR Assy
A MR MAIN BOARD Assy
B AV BOARD Assy
K POWER SUPPLY Unit
F SR Assy
H LED Assy
J SW Assy
G FRONT Assy

7.2 EXPLANATION

7.2.1 PROCESSING IN ABNORMALITY

Power supply and DC-DC converter

● Circuit diagram

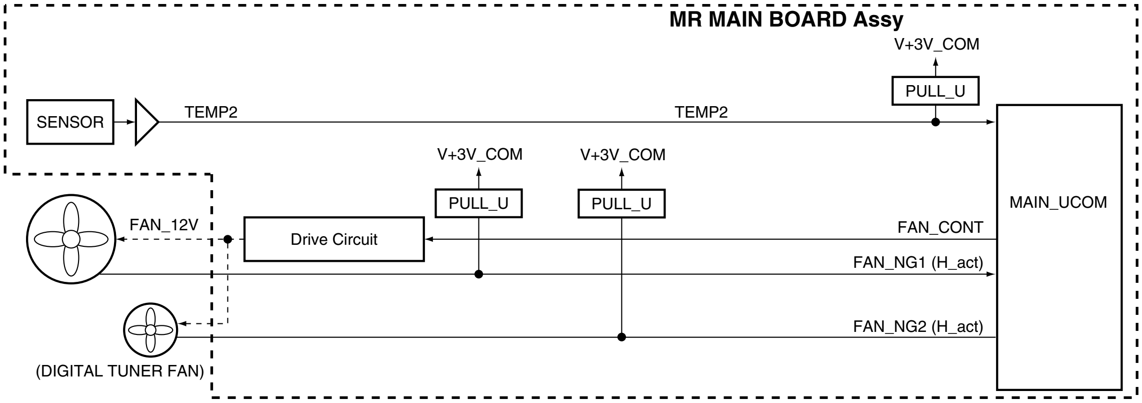

POWER SUPPLY Unit
AV BOARD Assy
MR MAIN BOARD Assy
PD_TRG
RST3 (H_act)
6.5V UV_DET
12V UV_DET
L_act
V+3V_DD RST_IC
V+12V
L_act
V+1V_DD RST_IC
RST2 (L_act)
MAIN_UCOM
PSW1 (L_act)
DC/DC Converter
RELAY (H_act)
SW_REG

● Specifications for port monitoring

Port Name	SD/PD Indication	Assigned Pin	Active
PD_MAIN (PD_TRG)	MR_PWR	41	Power-down with H
RST2	ASIC power supply	98	Shutdown with L

Fan and temperature sensor

● Circuit diagram

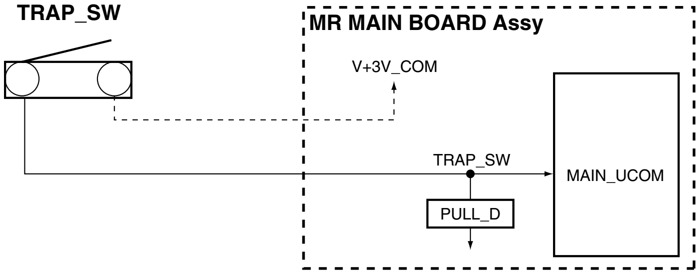

MR MAIN BOARD Assy
V+3V_COM
PULL_U
SENSOR
TEMP2
TEMP2
V+3V_COM
V+3V_COM
PULL_U
PULL_U
MAIN_UCOM
FAN_12V
Drive Circuit
FAN_CONT
FAN_NG1 (H_act)
FAN_NG2 (H_act)
(DIGITAL TUNER FAN)

● Specifications for port monitoring

Port Name	SD/PD Indication	Assigned Pin	Active
FAN_NG 1	FAN	31	Shutdown with H
FAN_NG 2	FAN	32	Shutdown with H
TEMP2	Abnormally high temperature in the MR	50	Shutdown when the value exceeds the predetermined value

TRAP_SW

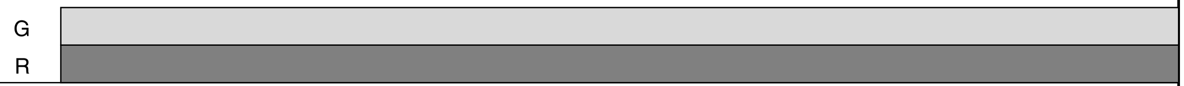
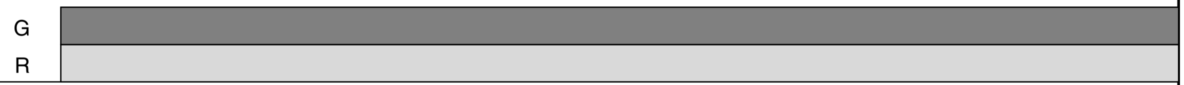
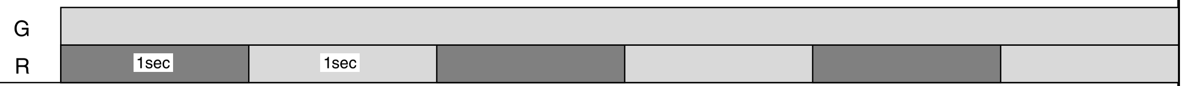
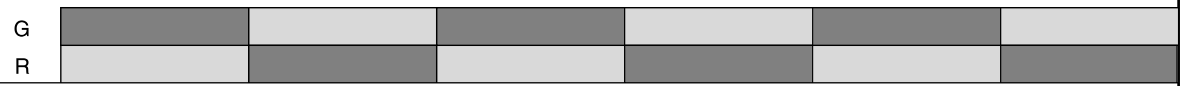
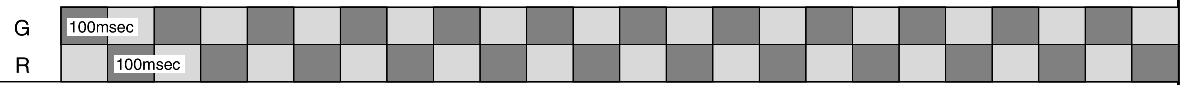
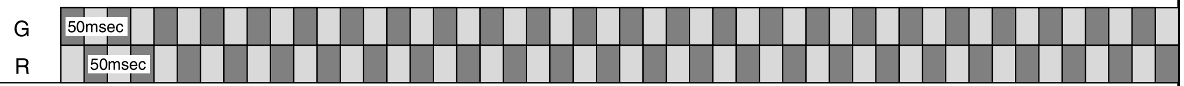
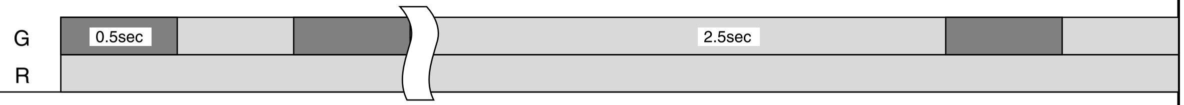
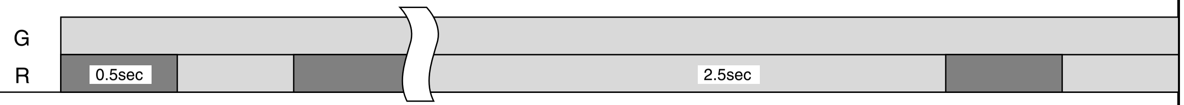
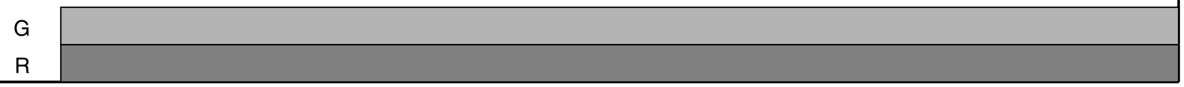
● Circuit diagram


TRAP_SW
MR MAIN BOARD Assy
V+3V_COM
TRAP_SW
MAIN_UCOM
PULL_D

● Specifications for port monitoring

Port Name	SD/PD Indication	Assigned Pin	Active
TRAP_SW	Modification tried	30	OFF with L

LED-lighting patterns

Status of the Unit		LED-lighting Pattern
Standby, power management	Lit in red	
Power on	Lit in green	
PDP's power not on	Flashing in red (at 1-sec intervals)	 G R 1sec 1sec
System cable disconnected *	Flashing alternately in red and green (at 1-sec intervals)	
Waiting for start of rewriting by the microcomputer		 G R 100msec 100msec
Waiting for finish of rewriting by the microcomputer		 G R 50msec 50msec
Shutdown (circuit protection)	Flashing in green n times (initially at 0.5-sec intervals then 2.5-sec intervals)	 G R 0.5sec 2.5sec
Power-down (circuit protection)	Flashing in red for n times (initially at 0.5-sec intervals then 2.5-sec intervals)	 G R 0.5sec 2.5sec
TRAP switch operation		

* In this case, the red and green areas on the screen of the panel flash alternately.

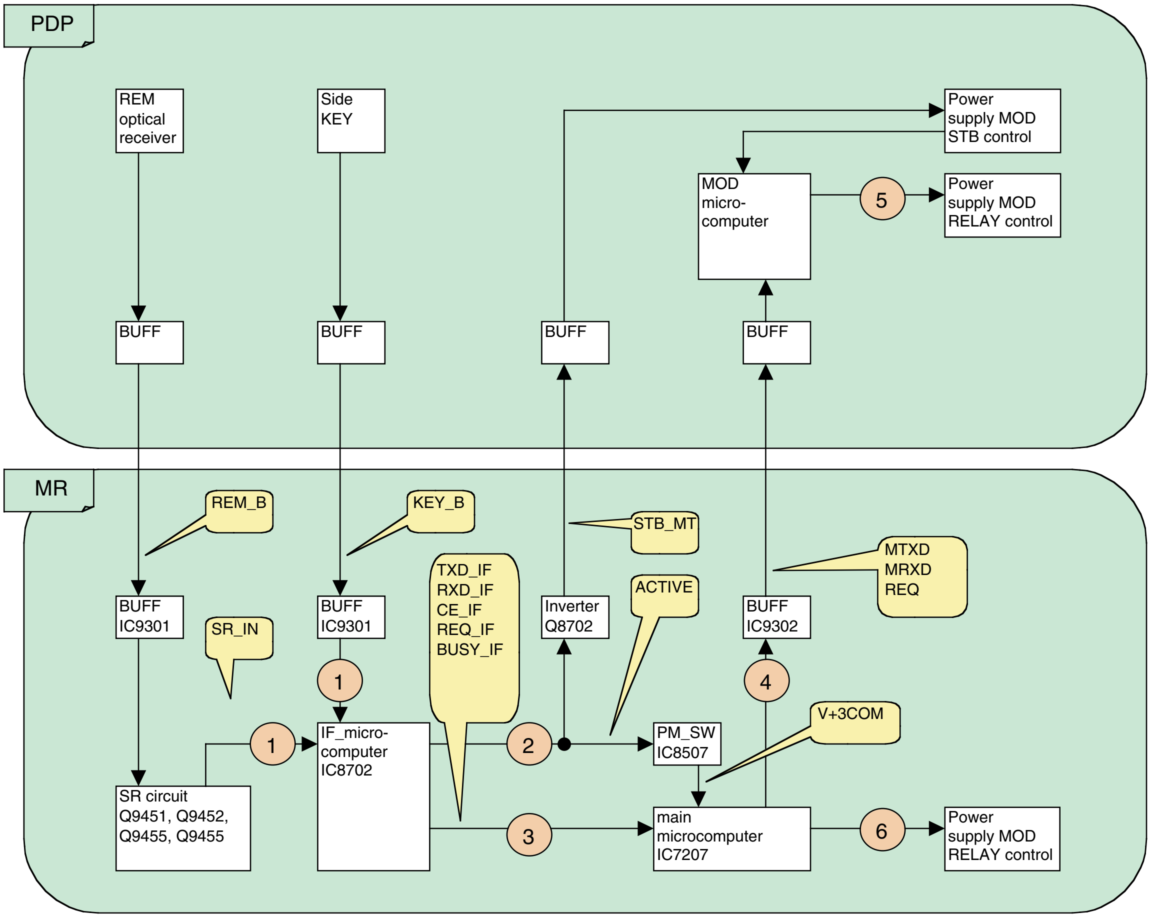
■ Defective points assumed from the number of times of LED flashing

No. of times of LED flashing				Category *1	Site detected as defective	Possible defective points (representative examples)	OSD when detected (warning message)
LEDs on the panel		LEDs on the MR					
RED	GRN	RED	GRN				
	Green 1	Red		SD	Panel drive IC	*2	None
	Green 2	Red			Module section IIC	*2	None
	Green 3	Red			Power decrease of DIGITAL-DC-DC	*2	None
	Green 4	Red			Panel having abnormally high temperature	*2	The power is shut down, because the internal temperature has risen. Check the temperature surrounding the PDP. (SD04)
	Green 5	Red			Short-circuiting of the speakers	*2	The power is shut down, because the protection circuit inside the unit is activated. Check if the speaker cables are short-circuited. (SD05)
Red			Green 6		Module microcomputer	Disconnection of the system cable Defective module microcomputer or its peripheral circuits of the panel (Refer to the service manual of the PDP-434PU or PDP-504PU.) Defective main microcomputer (IC7207) Failure in communication (TXD_MD, RXD_MD, REQ_MD) between the panel's module microcomputer and IC7207 (main microcomputer)	None
Red			Green 7		3-wire serial connection of the main section	Defective IC7004 or its peripheral circuits Failure in communication (TXD_IC, XD_IC2, CLK_IC2, IC2_CE, IC2_EMG) between IC7004 and IC7207 (main microcomputer) Defective IC7101 or its peripheral circuits Failure in communication (TXD_IC3, RXD_IC3, CLK_IC3, IC3_CE, IC3_REQ, IC3_BUSY) between IC7101 and IC7207 (main microcomputer)	None
Red			Green 8		IIC of the main section	Defective IC6107 (CD_MAIN) or its peripheral circuits Defective IC6255 (CD_SUB) or its peripheral circuits Defective IC6402 (AD_MAIN) or its peripheral circuits Defective IC6602 (AD_SUB) or its peripheral circuits Defective IC6881 (HDMI_2) or its peripheral circuits Defective IC6951 (BUS_SW) or its peripheral circuits Defective IC7401 (TX) or its peripheral circuits Defective U7501 (TU) or its peripheral circuits Defective U7502 (TU) or its peripheral circuits Defective IC8002 (AV_SW) or its peripheral circuits Defective IC8005 (RGB_SW) or its peripheral circuits Defective IC7205 (E2P) or its peripheral circuits Failure in communication (SCL_AV, SDA_AV, SCL_MAIN, SDA_MAIN, SCL_HDMI, SDA_HDMI, SCL_EP, SDA_EP) between one of the above devices and IC7207 (main microcomputer)	None
Red			Green 9		Main microcomputer	Defective IC7207 (main microcomputer) Defective flexible cable for communication between the MR MAIN BOARD Assy and the AV BOARD Assy Failure in communication (TXD_IF, RXD_IF, CLK_IF, IF_CE, IF_BUSY) between IC7207 (main microcomputer) and IC8702	None
Red			Green 10		Fan	Failure in the fan motor, or the fan stopped because of dust attached to the fan	None
Red			Green 11		MR or unit having abnormally high temperature	The Media Receiver or the unit being used at high temperature	The power is shut down, because the internal temperature has risen. Check the temperature surrounding the Media Receiver. (SD11)
Red			Green 12		Digital tuner (U.S. model)	Defective DTV tuner Failure in communication (TXD_DT, RXD_DT) between the digital tuner and IC8202 (main microcomputer)	None
Red			Green 13		ASIC power supply (DC-DC)	Defective U8502 (DD_CON) or short-circuiting elsewhere	None
Red			Green 14		IF_E2P	Defective IC8705 (IF_E2P) or its peripheral circuits	None
Red		Red 1		PD	MR PWR	Defective Power Supply Assy of the Media Receiver, or power short-circuiting in another Assy	None
Red 2		Red			POWER	*2	None
Red 3		Red			SCAN	*2	None
Red 4		Red			SCN-5V	*2	None
Red 5		Red			Y-DRIVE	*2	None
Red 6		Red			Y-DCDC	*2	None
Red 7		Red			Y-SUS	*2	None
Red 8		Red			ADRS	*2	None
Red 9		Red			X-DRIVE	*2	None
Red 10		Red			X-DCDC	*2	None
Red 11		Red			X-SUS	*2	None
Red 12		Red			D-DCDC	*2	None
Red 13		Red			IC4	*2	None

*1: Shutdown (SD) is a protective operation controlled by the microcomputer, and you can turn on the unit again using the remote control unit. Power-down (PD) is a protective operation activated by the circuitry and can be reset after AC power is off for about 1 minute.
*2: Refer to the service manual of the PDP-435PU or PDP-505PU.

7.2.2 SEQUENCE

R05 series Power-on sequence


PDP
REM optical receiver
Side KEY
Power supply MOD STB control
MOD micro-computer
5
Power supply MOD RELAY control
BUFF
BUFF
BUFF
BUFF
MR
REM_B
KEY_B
STB_MT
TXD_IF
RXD_IF
CE_IF
REQ_IF
BUSY_IF
ACTIVE
MTXD
MRXD
REQ
BUFF IC9301
SR_IN
BUFF IC9301
Inverter Q8702
BUFF IC9302
1
4
V+3COM
1
IF_micro-computer IC8702
2
PM_SW IC8507
SR circuit Q9451, Q9452, Q9455, Q9455
3
main microcomputer IC7207
6
Power supply MOD RELAY control

REM_B Comment in the balloon is the reference signal name.
Please confirm the wiring number of PDP side with the service manual of PDP side.

① : Remote controller signal (or, KEY signal) is input into IF microcomputer.
② : IF microcomputer supplies the power supply to Main microcomputer and MOD microcomputer.
③ : IF microcomputer communicates the operation information of Remote controller (or KEY) to Main microcomputer.
④ : Main microcomputer sends in the activation order to MOD microcomputer.
⑤ : MOD microcomputer controls the relay of PDP power supply MOD, and activate the power supply of PDP side.
⑥ : Main microcomputer controls the relay of MR power supply MOD, and activate the power supply of MR side.

7.3 PARTS

7.3.1 IC

¥ The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

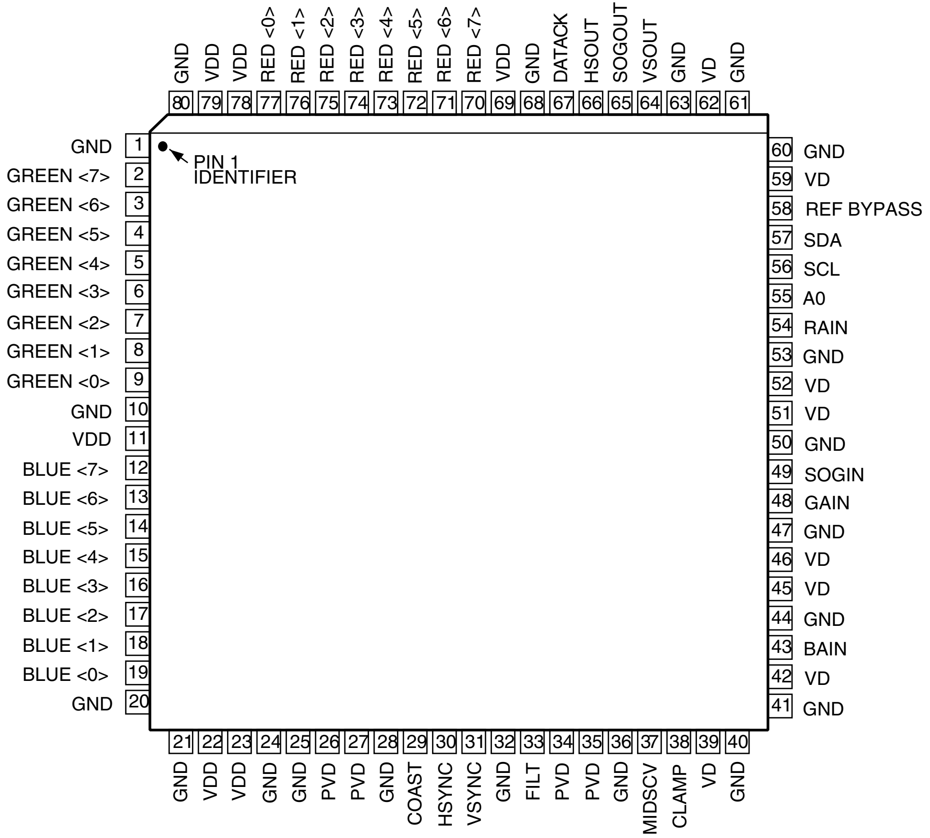
● List of IC

AD80058-K, SM5301BS, BA7078AF, SII9993CTG100, HY57V643220CT-7 (or K4S643232H-TC60-K), MBM29PL3200BE70PFV, SII170BCLG64, HY57V161610DTC-8 (or K4S161622H-TC60-K), TA1287FG, AXY1088, AXY1089, CXA2069Q

■ AD80058-K (MR MAIN BOARD ASSY : IC6402, IC6602)

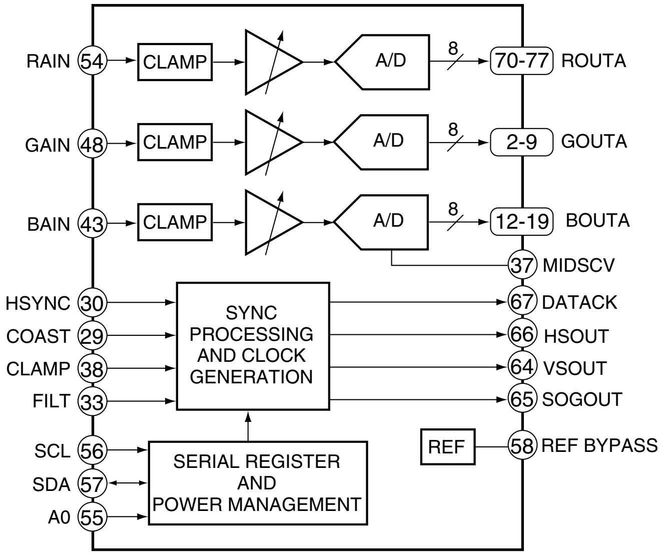
- 110 MSPS Analog Interface

● Pin Arrangement (Top view)



80 GND
79 VDD
78 VDD
77 RED <0>
76 RED <1>
75 RED <2>
74 RED <3>
73 RED <4>
72 RED <5>
71 RED <6>
70 RED <7>
69 VDD
68 GND
67 DATACK
66 HSOUT
65 SOGOUT
64 VSOUT
63 GND
62 VD
61 GND
1 GND
2 GREEN <7>
3 GREEN <6>
4 GREEN <5>
5 GREEN <4>
6 GREEN <3>
7 GREEN <2>
8 GREEN <1>
9 GREEN <0>
10 GND
11 VDD
12 BLUE <7>
13 BLUE <6>
14 BLUE <5>
15 BLUE <4>
16 BLUE <3>
17 BLUE <2>
18 BLUE <1>
19 BLUE <0>
20 GND
PIN 1 IDENTIFIER
60 GND
59 VD
58 REF BYPASS
57 SDA
56 SCL
55 A0
54 RAIN
53 GND
52 VD
51 VD
50 GND
49 SOGIN
48 GAIN
47 GND
46 VD
45 VD
44 GND
43 BAIN
42 VD
41 GND
21 GND
22 VDD
23 VDD
24 GND
25 GND
26 PVD
27 PVD
28 GND
29 COAST
30 HSYNC
31 VSYNC
32 GND
33 FILT
34 PVD
35 PVD
36 GND
37 MIDSCV
38 CLAMP
39 VD
40 GND

● Block Diagram



RAIN 54
GAIN 48
BAIN 43
CLAMP
CLAMP
CLAMP
A/D
A/D
A/D
8
8
8
70-77 ROUTA
2-9 GOUTA
12-19 BOUTA
37 MIDSCV
HSYNC 30
COAST 29
CLAMP 38
FILT 33
SYNC PROCESSING AND CLOCK GENERATION
67 DATACK
66 HSOUT
64 VSOUT
65 SOGOUT
REF
58 REF BYPASS
SCL 56
SDA 57
A0 55
SERIAL REGISTER AND POWER MANAGEMENT

● Pin Function

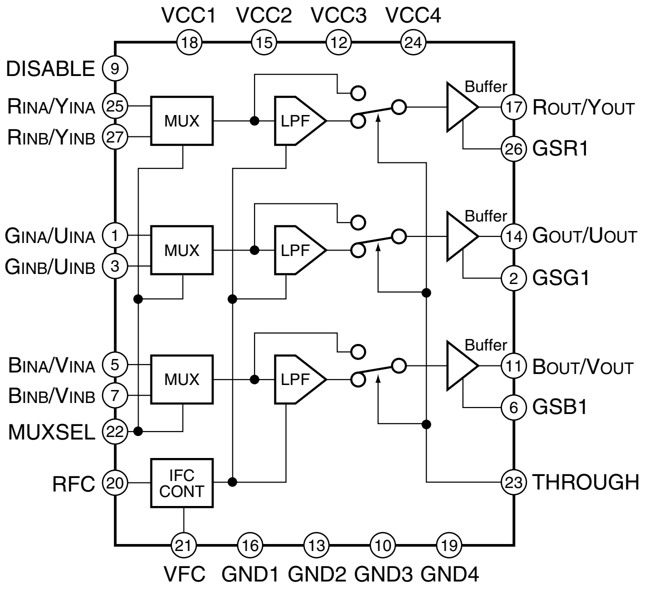
No.	Pin Name	I/O	Pin Function
1	GND	–	Ground
2	GREEN 7	O	Converter Green output (MSB)
3	GREEN 6	O	Converter Green output
4	GREEN 5	O	Converter Green output
5	GREEN 4	O	Converter Green output
6	GREEN 3	O	Converter Green output
7	GREEN 2	O	Converter Green output
8	GREEN 1	O	Converter Green output
9	GREEN 0	O	Converter Green output
10	GND	–	Ground
11	VDD	–	Power supply (3.3V)
12	BLUE 7	O	Converter Blue output (MSB)
13	BLUE 6	O	Converter Blue output
14	BLUE 5	O	Converter Blue output
15	BLUE 4	O	Converter Blue output
16	BLUE 3	O	Converter Blue output
17	BLUE 2	O	Converter Blue output
18	BLUE 1	O	Converter Blue output
19	BLUE 0	O	Converter Blue output
20	GND	–	Ground
21	GND	–	Ground
22	VDD	–	Power supply (3.3V)
23	VDD	–	Power supply (3.3V)
24	GND	–	Ground
25	GND	–	Ground
26	PVD	–	PLL power supply (3.3V)
27	PVD	–	PLL power supply (3.3V)
28	GND	–	Ground
29	COAST	I	PLL COAST signal input
30	HSYNC	I	Horizontal sync. input
31	VSYNC	I	Vertical sync. input
32	GND	–	Ground
33	FILT	–	External filter connection pin for built-in PLL
34	PVD	–	PLL power supply (3.3V)
35	PVD	–	PLL power supply (3.3V)
36	GND	–	Ground
37	MIDSCV	–	Internal middle scale voltage bias
38	CLAMP	I	Clamp input (External clamp signal)
39	VD	–	Analog power supply (3.3V)
40	GND	–	Ground
41	GND	–	Ground
42	VD	–	Analog power supply (3.3V)
43	BAIN	I	Analog input for converter B
44	GND	–	Ground
45	VD	–	Analog power supply (3.3V)

No.	Pin Name	I/O	Pin Function
46	VD	–	Analog power supply (3.3V)
47	GND	–	Ground
48	GAIN	I	Analog input for converter G
49	SOGIN	I	Input for Sync-on Green
50	GND	–	Ground
51	VD	–	Analog power supply (3.3V)
52	VD	–	Analog power supply (3.3V)
53	GND	–	Ground
54	RAIN	I	Analog input for converter R
55	A0	I	Address input 1 of serial port
56	SCL	I	Data clock (max. 100kHz) of serial port
57	SDA	I/O	Data input/output of serial port
58	REF BYPASS	–	Internal reference bypass
59	VD	–	Analog power supply (3.3V)
60	GND	–	Ground
61	GND	–	Ground
62	VD	–	Analog power supply (3.3V)
63	GND	–	Ground
64	VSOUT	O	VSYNC output (phasing with DATACLK)
65	SOGOUT	O	Sync-on-Green slicer output
66	HSOUT	O	HSYNC output (phasing with DATACLK)
67	DATACLK	O	Data input/output clock
68	GND	–	Ground
69	VDD	–	Power supply (3.3V)
70	RED 7	O	Converter Red output (MSB)
71	RED 6	O	Converter Red output
72	RED 5	O	Converter Red output
73	RED 4	O	Converter Red output
74	RED 3	O	Converter Red output
75	RED 2	O	Converter Red output
76	RED 1	O	Converter Red output
77	RED 0	O	Converter Red output
78	VDD	–	Power supply (3.3V)
79	VDD	–	Power supply (3.3V)
80	GND	–	Ground

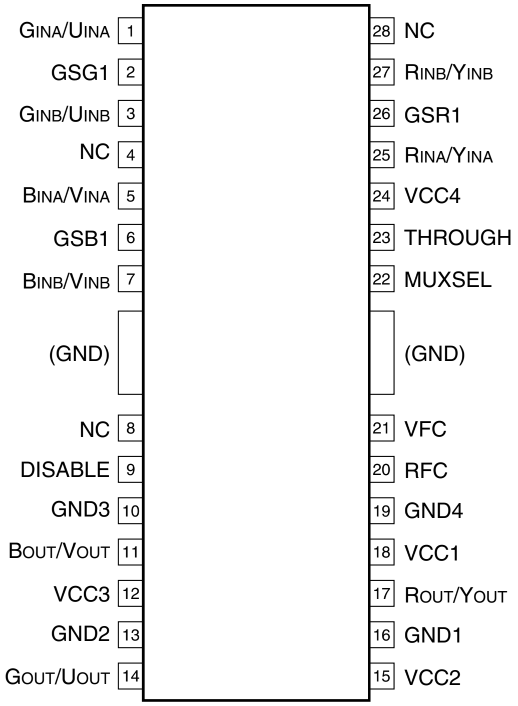
■ SM5301BS (MR MAIN BOARD ASSY : IC6401, IC6601)

• Video Filter

● Block Diagram


VCC1
VCC2
VCC3
VCC4
18
15
12
24
DISABLE 9
RINA/YINA 25
RINB/YINB 27
MUX
LPF
Buffer
17 ROUT/YOUT
26 GSR1
GINA/UINA 1
GINB/UINB 3
14 GOUT/UOUT
2 GSG1
BINA/VINA 5
BINB/VINB 7
MUXSEL 22
11 BOUT/VOUT
6 GSB1
RFC 20
IFC CONT
23 THROUGH
21
16
13
10
19
VFC
GND1
GND2
GND3
GND4

● Pin Arrangement (Top view)


GINA/UINA 1
GSG1 2
GINB/UINB 3
NC 4
BINA/VINA 5
GSB1 6
BINB/VINB 7
(GND)
NC 8
DISABLE 9
GND3 10
BOUT/VOUT 11
VCC3 12
GND2 13
GOUT/UOUT 14
28 NC
27 RINB/YINB
26 GSR1
25 RINA/YINA
24 VCC4
23 THROUGH
22 MUXSEL
(GND)
21 VFC
20 RFC
19 GND4
18 VCC1
17 ROUT/YOUT
16 GND1
15 VCC2

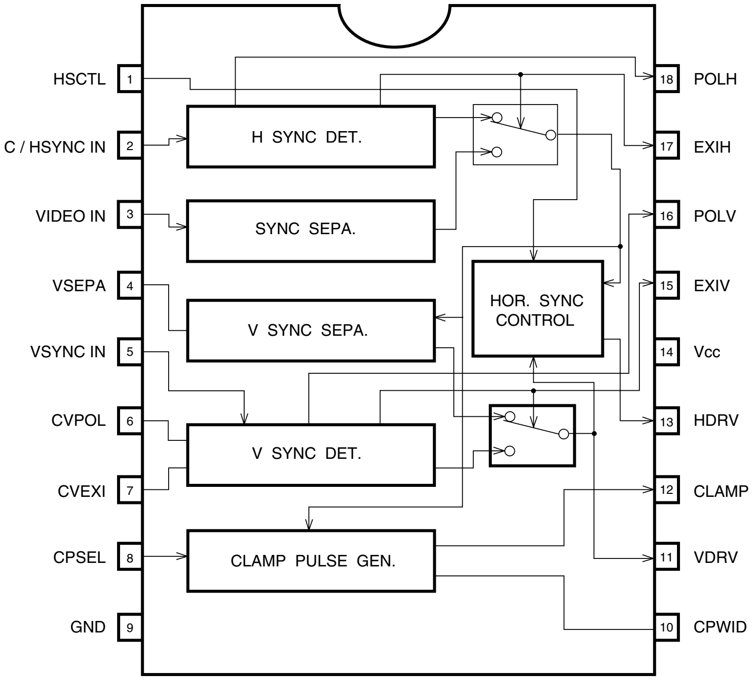
● Pin Function

No.	Pin Name	I/O	Pin Function
1	GINA/UINA	I	Analog GINA or UINA signal input. Sync signal is input on SYNCIN pin.
2	GSG1	I	GOUT/UOUT output buffer gain set input
3	GINB/UINB	I	Analog GINB or UINB signal input. Sync signal is input on SYNCIN pin.
4	(NC)	–	No connection
5	BINA/VINA	I	Analog BINA or VINA signal input. Sync signal is input on SYNCIN pin.
6	GSB1	I	BOUT/VOUT output buffer gain set input
7	BINB/VINB	I	Analog BINB or VINB signal input. Sync signal is input on SYNCIN pin.
8	(NC)	–	No connection
9	DISABLE	I	Power save function. Built-in pull-down resistor. L : Enable H : Disable (Output pins: ROUT/YOUT, GOUT/UOUT, and BOUT/VOUT are high impedance.)
10	GND3	–	Analog ground
11	BOUT/VOUT	O	B/V signal output
12	VCC3	–	Analog 5V supply
13	GND2	–	Analog ground
14	GOUT/UOUT	O	G/U signal output
15	VCC2	–	Analog 5V supply
16	GND1	–	Analog ground
17	ROUT/YOUT	O	R/Y signal output
18	VCC1	–	Analog 5V supply
19	GND4	–	Analog ground
20	RFC	–	LPF (lowpass filter) cutoff frequency setting resistor connection
21	VFC	I	LPF (lowpass filter) cutoff frequency setting voltage input
22	MUXSEL	I	Input select signal. Built-in pull-down resistor. L : XINA pin select H : XINB pin select
23	THROUGH	I	Filter through Built-in pull-down resistor. L : Filter function H : Filter through (buffer only)
24	VCC4	–	Analog 5V supply
25	RINA/YINA	I	Analog RINA or YINA signal input. Sync signal is input on SYNCIN pin.
26	GSR1	I	ROUT/YOUT output buffer gain set input
27	RINB/YINB	I	Analog RINB or YINB signal input. Sync signal is input on SYNCIN pin.
28	(NC)	–	No connection

■ BA7078AF (MR MAIN BOARD ASSY : IC6404, IC6604)

- Multi Sync Separation IC

● Block Diagram


HSCTL 1
C / HSYNC IN 2
VIDEO IN 3
VSEPA 4
VSYNC IN 5
CVPOL 6
CVEXI 7
CPSEL 8
GND 9
CPWID 10
VDRV 11
CLAMP 12
HDRV 13
Vcc 14
EXIV 15
POLV 16
EXIH 17
POLH 18
H SYNC DET.
SYNC SEPA.
V SYNC SEPA.
HOR. SYNC CONTROL
V SYNC DET.
CLAMP PULSE GEN.

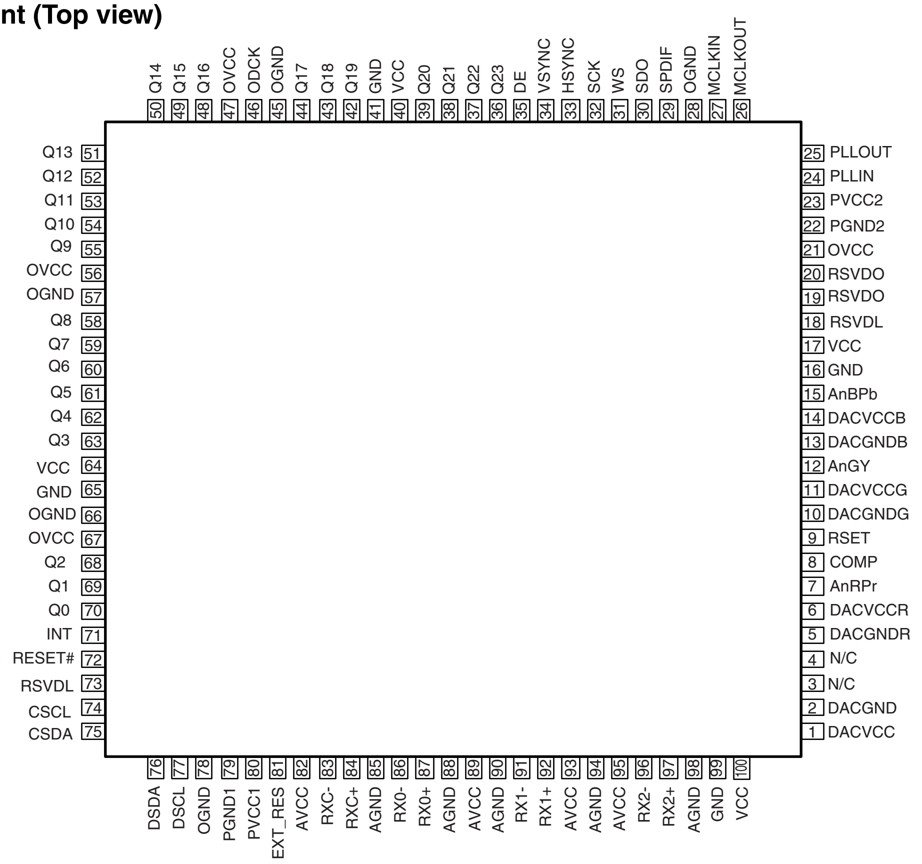
● Pin Function

No.	Pin Name	Pin Function
1	HSCTL	HDRV output Used to select whether to output the VDRV section of the HDRV output signal. High : VDRV section of HDRV is output Low : VDRV section of HDRV is not output
2	C/HSYNC IN	Composite sync / H SYNC input Input either the composite synchronization signal or the horizontal synchronization signal. Input is clamped, and is initiated by capacitor coupling.
3	VIDEO IN	SYNC ON VIDEO input Inputs the SYNC ON VIDEO signal(green). Input is sink chip clamped. Input is initiated by capacitor coupling.
4	VSEPA	f-V conversion Converts the horizontal synchronization signal frequency into a voltage. The voltage generated is proportional to the frequency of the horizontal synchronization signal. Attach a 0.56 µF capacitor between the ground pins.
5	VSYNC IN	V SYNC input Inputs the vertical synchronization signal.
6	CVPOL	Vertical polarity integration Integrates the vertical synchronization signal polarity detection circuit. Attach a 1.5 µF capacitor between this pin and the ground.
7	CVEXI	Vertical existence integration Integrates the vertical synchronization signal existence detection circuit. Attach a 1 µF capacitor between this pin and the ground.
8	CPSEL	Setting the clamp position Used to set the clamp pulse generation position to either the front or back edge of HSYNC High : The front edge is the generation position Open : Composite / H SYNC IN : The front edge is the generation position VIDEO IN : The back edge is the generation position Low : The back edge is the generation position
9	GND	Ground
10	CPWID	Setting the clamp pulse width Sets the clamp pulse width according to the attached time constant. Attach a resistor between this pin and VCC and, a capacitor between this pin and GND. When R = 3.9kΩ and C = 100pF, pulse width is approximately 400 ns. Set the resistor to register an abnormality at 1kΩ.
11	VDRV	VDRV output Outputs the vertical synchronization signal. The output signal has positive polarity.
12	CLAMP	Clamp output Outputs the clamp pulse generated from the vertical synchronization signal. The output signal has a positive polarity.
13	HDRV	HDRV output Outputs the clamp pulse generated from the horizontal synchronization signal. The output signal has positive polarity.
14	Vcc	Power supply
15	EXIV	Vertical existence output Indecates whether the vertical synchronization signal exists.
16	POLV	Vertical polarity output Indicates the polarity of the vertical synchronization signal.
17	EXIH	Horizontal existence output Indicates whether the horizontal synchronization signal exists.
18	POLH	Horizontal polarity output Indicates the polarity of the horizontal synchronization signal.

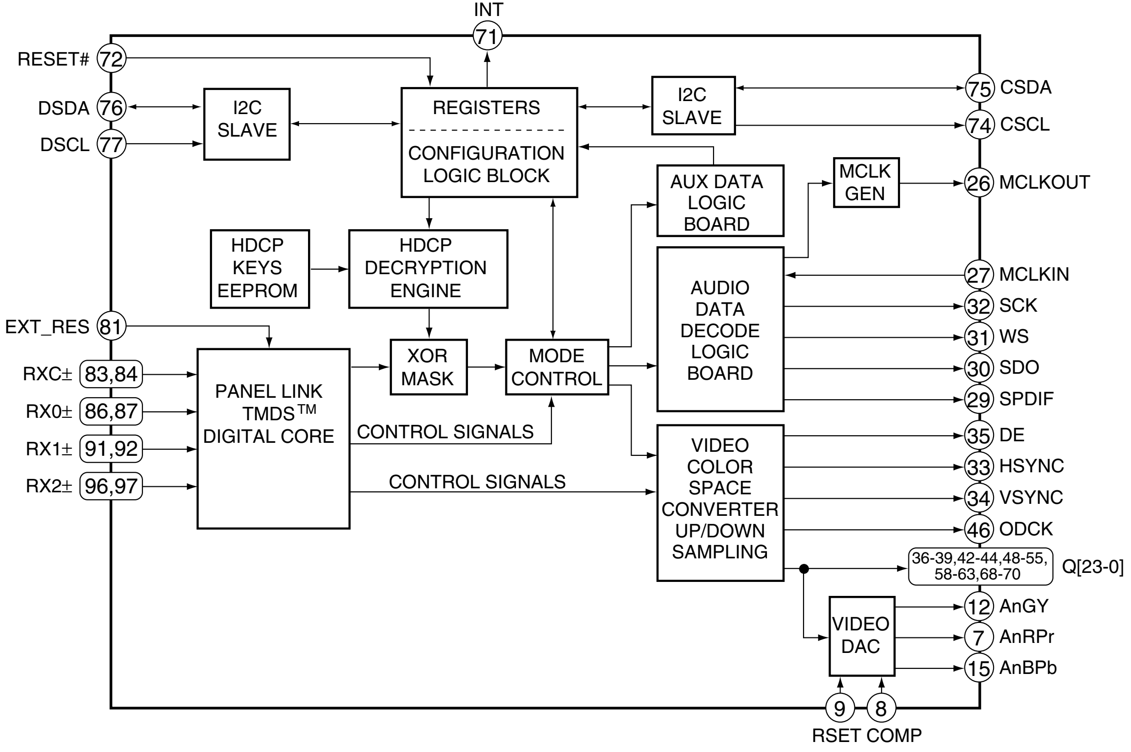
■ SII9993CTG100 (MR MAIN BOARD ASSY : IC6881, IC6801)

• HDCP Panel Link Receiver

● Pin Arrangement (Top view)


50 Q14
49 Q15
48 Q16
47 OVCC
46 ODCK
45 OGND
44 Q17
43 Q18
42 Q19
41 GND
40 VCC
39 Q20
38 Q21
37 Q22
36 Q23
35 DE
34 VSYNC
33 HSYNC
32 SCK
31 WS
30 SDO
29 SPDIF
28 OGND
27 MCLKIN
26 MCLKOUT
Q13 51
Q12 52
Q11 53
Q10 54
Q9 55
OVCC 56
OGND 57
Q8 58
Q7 59
Q6 60
Q5 61
Q4 62
Q3 63
VCC 64
GND 65
OGND 66
OVCC 67
Q2 68
Q1 69
Q0 70
INT 71
RESET# 72
RSVDL 73
CSCL 74
CSDA 75
25 PLLOUT
24 PLLIN
23 PVCC2
22 PGND2
21 OVCC
20 RSVDO
19 RSVDO
18 RSVDL
17 VCC
16 GND
15 AnBPb
14 DACVCCB
13 DACGNDB
12 AnGY
11 DACVCCG
10 DACGNDG
9 RSET
8 COMP
7 AnRPr
6 DACVCCR
5 DACGNDR
4 N/C
3 N/C
2 DACGND
1 DACVCC
76 DSDA
77 DSCL
78 OGND
79 PGND1
80 PVCC1
81 EXT_RES
82 AVCC
83 RXC-
84 RXC+
85 AGND
86 RX0-
87 RX0+
88 AGND
89 AVCC
90 AGND
91 RX1-
92 RX1+
93 AVCC
94 AGND
95 AVCC
96 RX2-
97 RX2+
98 AGND
99 GND
100 VCC

● Block Diagram


INT
71
RESET# 72
DSDA 76
DSCL 77
I2C SLAVE
REGISTERS
CONFIGURATION LOGIC BLOCK
I2C SLAVE
75 CSDA
74 CSCL
MCLK GEN
26 MCLKOUT
AUX DATA LOGIC BOARD
HDCP KEYS EEPROM
HDCP DECRYPTION ENGINE
AUDIO DATA DECODE LOGIC BOARD
27 MCLKIN
32 SCK
31 WS
30 SDO
29 SPDIF
EXT_RES 81
RXC± 83,84
RX0± 86,87
RX1± 91,92
RX2± 96,97
PANEL LINK TMDS™ DIGITAL CORE
XOR MASK
MODE CONTROL
CONTROL SIGNALS
CONTROL SIGNALS
VIDEO COLOR SPACE CONVERTER UP/DOWN SAMPLING
35 DE
33 HSYNC
34 VSYNC
46 ODCK
36-39,42-44,48-55, 58-63,68-70 Q[23-0]
VIDEO DAC
12 AnGY
7 AnRPr
15 AnBPb
9 8
RSET COMP

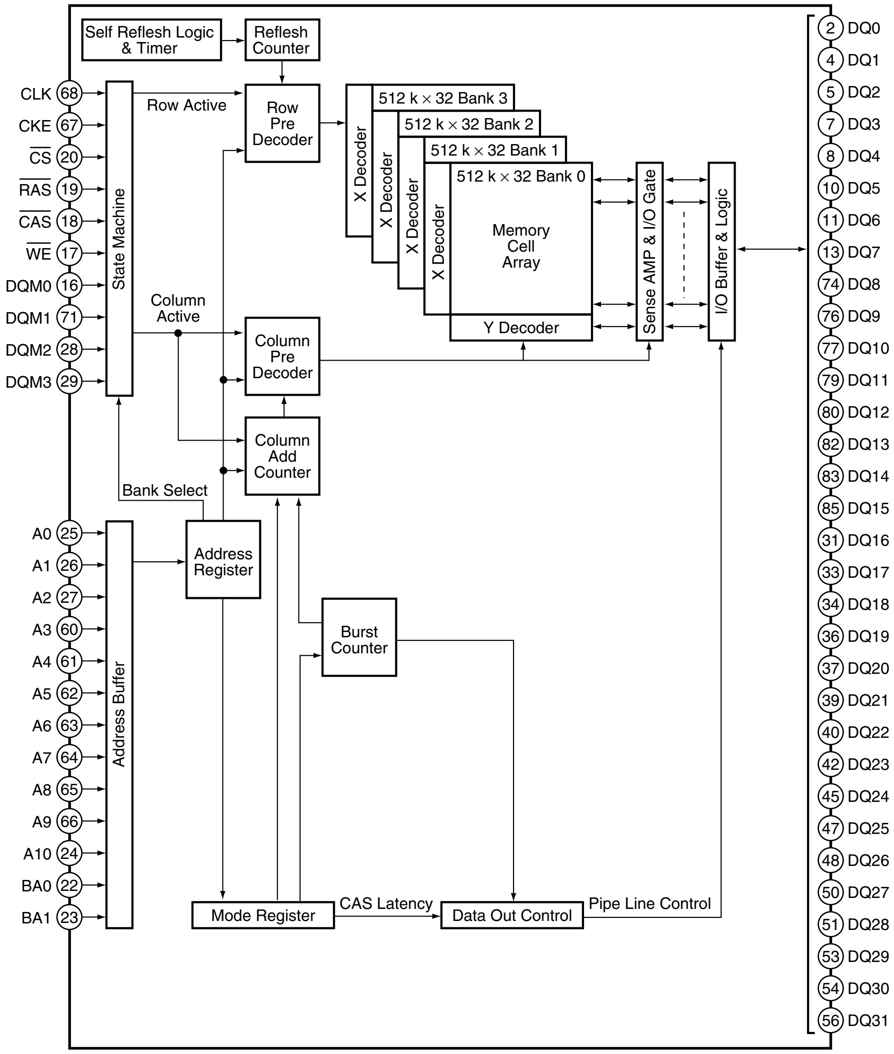
● Pin Function

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	DACVCC	–	DAC power supply (3.3V)	51	Q13	O	24-bit output pixel data bus
2	DACGND	–	DAC ground	52	Q12	O	24-bit output pixel data bus
3	N/C	–	No connection	53	Q11	O	24-bit output pixel data bus
4	N/C	–	No connection	54	Q10	O	24-bit output pixel data bus
5	DACGNDR	–	DAC Red ground	55	Q9	O	24-bit output pixel data bus
6	DACVCCR	–	DAC Red power supply (3.3V)	56	OVCC	–	Output bus power supply (3.3V)
7	AnRPr	O	Red, Pr output of analog video	57	OGND	–	Output bus ground
8	COMP	I	For reference amp. correction of DAC inside	58	Q8	O	24-bit output pixel data bus
9	RSET	I	Full scale adjustment resistor input	59	Q7	O	24-bit output pixel data bus
10	DACGNDG	–	DAC Green ground	60	Q6	O	24-bit output pixel data bus
11	DACVCCG	–	DAC Green power supply (3.3V)	61	Q5	O	24-bit output pixel data bus
12	AnGY	O	Green, Y output of analog video	62	Q4	O	24-bit output pixel data bus
13	DACGNDB	–	DAC Blue ground	63	Q3	O	24-bit output pixel data bus
14	DACVCCB	–	DAC Blue power supply (3.3V)	64	VCC	–	Digital power supply (3.3V)
15	AnBPb	O	Blue, Pb output of analog video	65	GND	–	Digital ground
16	GND	–	Digital ground	66	OGND	–	Output bus ground
17	VCC	–	Digital power supply (3.3V)	67	OVCC	–	Output bus power supply (3.3V)
18	RSVDL	I	Reserved Fixed to low.	68	Q2	O	24-bit output pixel data bus
19	RSVDD	O	Reserved No connection	69	Q1	O	24-bit output pixel data bus
20	RSVDD	O	Reserved No connection	70	Q0	O	24-bit output pixel data bus
21	OVCC	–	Output bus power supply (3.3V)	71	INT	O	Interruption output
22	PGND2	–	Audio PLL ground	72	RESET#	I	Reset Activ low.
23	PVCC2	–	Audio PLL power supply (3.3V)	73	RSVDL	I	Reserved Fixed to low.
24	PLLIN	I/O	PLL filter input	74	CSCL	I	Configuration I2C clock
25	PLLOUT	I/O	PLL filter output	75	CSDA	I/O	Configuration I2C data
26	MCCLKOUT	O	Audio master clock output	76	DSDA	I/O	DDC I2C data
27	MCCLKIN	I	Reference audio master clock input	77	DSCL	I	DDC I2C clock
28	OGND	–	Output bus ground	78	OGND	–	Output bus ground
29	SPDIF	O	SPDIF audio output	79	PGND1	–	PLL ground
30	SDO	O	I2S serial data output	80	PVCC1	–	PLL power supply (3.3V)
31	WS	O	I2S word selecting output	81	EXT_RES	I	Input impedance adjustment
32	SCK	O	I2S serial clock output	82	AVCC	–	Analog power supply (3.3V)
33	HSYNC	O	Horizontal sync. control signal output	83	RXC-	I	TMDS data input
34	VSYNC	O	Vertical sync. control signal output	84	RXC+	I	TMDS data input
35	DE	O	Data enable	85	AGND	–	Analog ground
36	Q23	O	24-bit output pixel data bus	86	RX0-	I	TMDS data input
37	Q22	O	24-bit output pixel data bus	87	RX0+	I	TMDS data input
38	Q21	O	24-bit output pixel data bus	88	AGND	–	Analog ground
39	Q20	O	24-bit output pixel data bus	89	AVCC	–	Analog power supply (3.3V)
40	VCC	–	Digital power supply (3.3V)	90	AGND	–	Analog ground
41	GND	–	Digital ground	91	RX1-	I	TMDS data input
42	Q19	O	24-bit output pixel data bus	92	RX1+	I	TMDS data input
43	Q18	O	24-bit output pixel data bus	93	AVCC	–	Analog power supply (3.3V)
44	Q17	O	24-bit output pixel data bus	94	AGND	–	Analog ground
45	OGND	–	Output bus ground	95	AVCC	–	Analog power supply (3.3V)
46	ODCK	O	Data clock output	96	RX2-	I	TMDS data input
47	OVCC	–	Output bus power supply (3.3V)	97	RX2+	I	TMDS data input
48	Q16	O	24-bit output pixel data bus	98	AGND	–	Analog ground
49	Q15	O	24-bit output pixel data bus	99	GND	–	Digital ground
50	Q14	O	24-bit output pixel data bus	100	VCC	–	Digital power supply (3.3V)

■ HY57V643220CT-7 (MR MAIN BOARD ASSY : IC7001, IC7002) (or K4S643232H-TC60-K)

- Synchronous DRAM

● Block Diagram


Self Reflesh Logic & Timer
Reflesh Counter
Row Active
Row Pre Decoder
CLK 68
CKE 67
CS 20
RAS 19
CAS 18
WE 17
DQM0 16
DQM1 71
DQM2 28
DQM3 29
State Machine
512 k × 32 Bank 3
512 k × 32 Bank 2
512 k × 32 Bank 1
512 k × 32 Bank 0
X Decoder
Memory Cell Array
Y Decoder
Sense AMP & I/O Gate
I/O Buffer & Logic
Column Active
Column Pre Decoder
Column Add Counter
Bank Select
Address Register
Burst Counter
A0 25
A1 26
A2 27
A3 60
A4 61
A5 62
A6 63
A7 64
A8 65
A9 66
A10 24
BA0 22
BA1 23
Address Buffer
Mode Register
CAS Latency
Data Out Control
Pipe Line Control
2 DQ0
4 DQ1
5 DQ2
7 DQ3
8 DQ4
10 DQ5
11 DQ6
13 DQ7
74 DQ8
76 DQ9
77 DQ10
79 DQ11
80 DQ12
82 DQ13
83 DQ14
85 DQ15
31 DQ16
33 DQ17
34 DQ18
36 DQ19
37 DQ20
39 DQ21
40 DQ22
42 DQ23
45 DQ24
47 DQ25
48 DQ26
50 DQ27
51 DQ28
53 DQ29
54 DQ30
56 DQ31

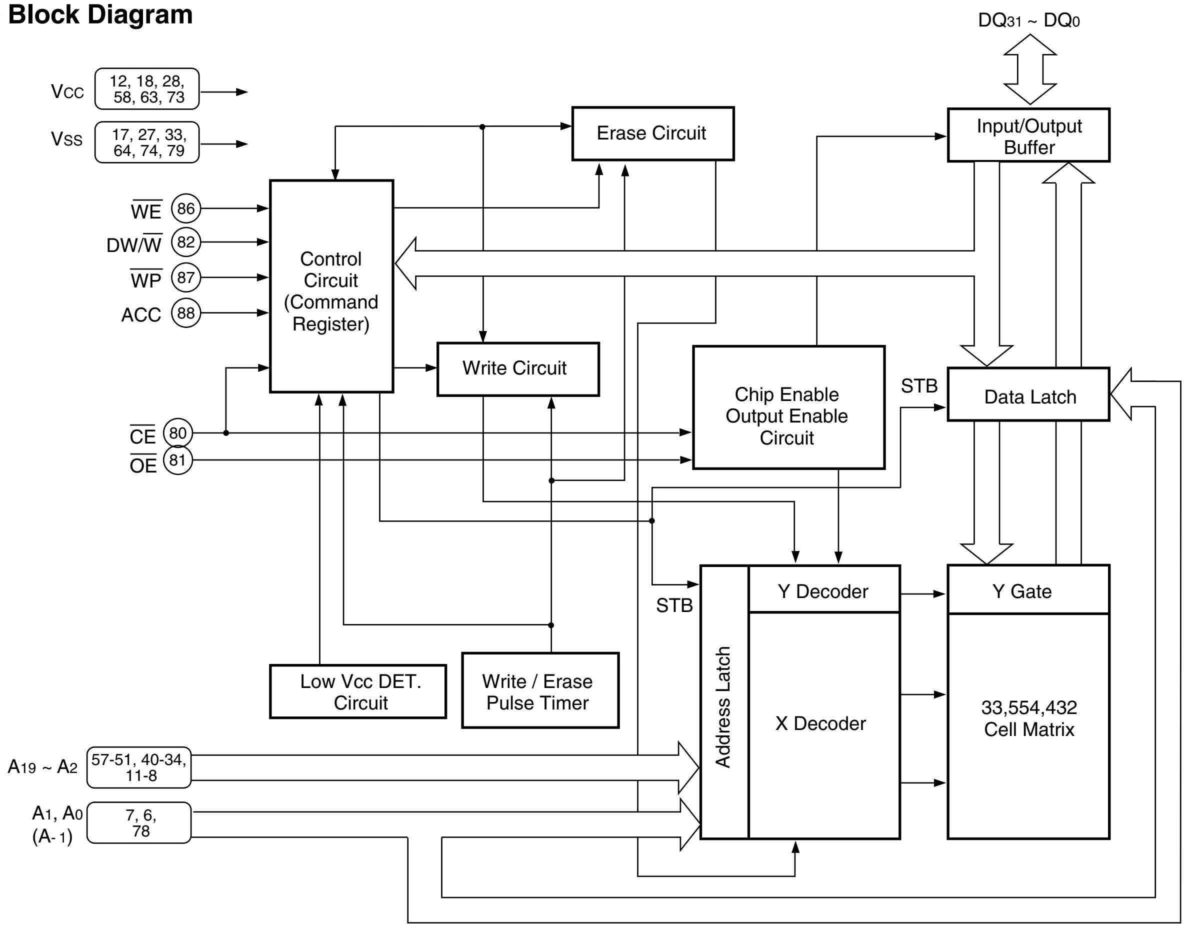
● Pin Function

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	VDD	–	Power supply	44	VSS	–	Ground
2	DQ0	I/O	Data input/output	45	DQ24	I/O	Data input/output
3	VDDQ	–	Power supply for output buffer	46	VSSQ	–	Ground for output buffer
4	DQ1	I/O	Data input/output	47	DQ25	I/O	Data input/output
5	DQ2	I/O	Data input/output	48	DQ26	I/O	Data input/output
6	VSSQ	–	Ground for output buffer	49	VDDQ	–	Power supply for output buffer
7	DQ3	I/O	Data input/output	50	DQ27	I/O	Data input/output
8	DQ4	I/O	Data input/output	51	DQ28	I/O	Data input/output
9	VDDQ	–	Power supply for output buffer	52	VSSQ	–	Ground for output buffer
10	DQ5	I/O	Data input/output	53	DQ29	I/O	Data input/output
11	DQ6	I/O	Data input/output	54	DQ30	I/O	Data input/output
12	VSSQ	–	Ground for output buffer	55	VDDQ	–	Power supply for output buffer
13	DQ7	I/O	Data input/output	56	DQ31	I/O	Data input/output
14	NC	–	No connection	57	NC	–	No connection
15	VDD	–	Power supply	58	VSS	–	Ground
16	DQM0	I	Data input/output mask	59	DQM3	I	Data input/output mask
17	/WE	I	Write enable	60	A3	I	Address input
18	/CAS	I	Column address strobe	61	A4	I	Address input
19	/RAS	I	Row address strobe	62	A5	I	Address input
20	/CS	I	Chip select input	63	A6	I	Address input
21	NC	–	No connection	64	A7	I	Address input
22	BA0	I	Bank address input	65	A8	I	Address input
23	BA1	I	Bank address input	66	A9	I	Address input
24	A10/AP	I	Address input	67	CKE	I	Clock enable
25	A0	I	Address input	68	CLK	I	System clock input
26	A1	I	Address input	69	NC	–	No connection
27	A2	I	Address input	70	NC	–	No connection
28	DQM2	I	Data input/output mask	71	DQM1	I	Data input/output mask
29	VDD	–	Power supply	72	VSS	–	Ground
30	NC	–	No connection	73	NC	–	No connection
31	DQ16	I/O	Data input/output	74	DQ8	I/O	Data input/output
32	VSSQ	–	Ground for output buffer	75	VDDQ	–	Power supply for output buffer
33	DQ17	I/O	Data input/output	76	DQ9	I/O	Data input/output
34	DQ18	I/O	Data input/output	77	DQ10	I/O	Data input/output
35	VDDQ	–	Power supply for output buffer	78	VSSQ	–	Ground for output buffer
36	DQ19	I/O	Data input/output	79	DQ11	I/O	Data input/output
37	DQ20	I/O	Data input/output	80	DQ12	I/O	Data input/output
38	VSSQ	–	Ground for output buffer	81	VDDQ	–	Power supply for output buffer
39	DQ21	I/O	Data input/output	82	DQ13	I/O	Data input/output
40	DQ22	I/O	Data input/output	83	DQ14	I/O	Data input/output
41	VDDQ	–	Power supply for output buffer	84	VSSQ	–	Ground for output buffer
42	DQ23	I/O	Data input/output	85	DQ15	I/O	Data input/output
43	VDD	–	Power supply	86	VSS	–	Ground

■ MBM29PL3200BE70PFV (MR MAIN BOARD ASSY : IC7152)

• Page Mode Flash Memory

● Block Diagram


DQ31 ~ DQ0
VCC
12, 18, 28, 58, 63, 73
VSS
17, 27, 33, 64, 74, 79
Erase Circuit
Input/Output Buffer
WE 86
DW/W 82
WP 87
ACC 88
Control Circuit (Command Register)
Write Circuit
Chip Enable Output Enable Circuit
STB
Data Latch
CE 80
OE 81
Y Decoder
Y Gate
STB
Address Latch
X Decoder
33,554,432 Cell Matrix
Low Vcc DET. Circuit
Write / Erase Pulse Timer
A19 ~ A2
57-51, 40-34, 11-8
A1, A0 (A-1)
7, 6, 78

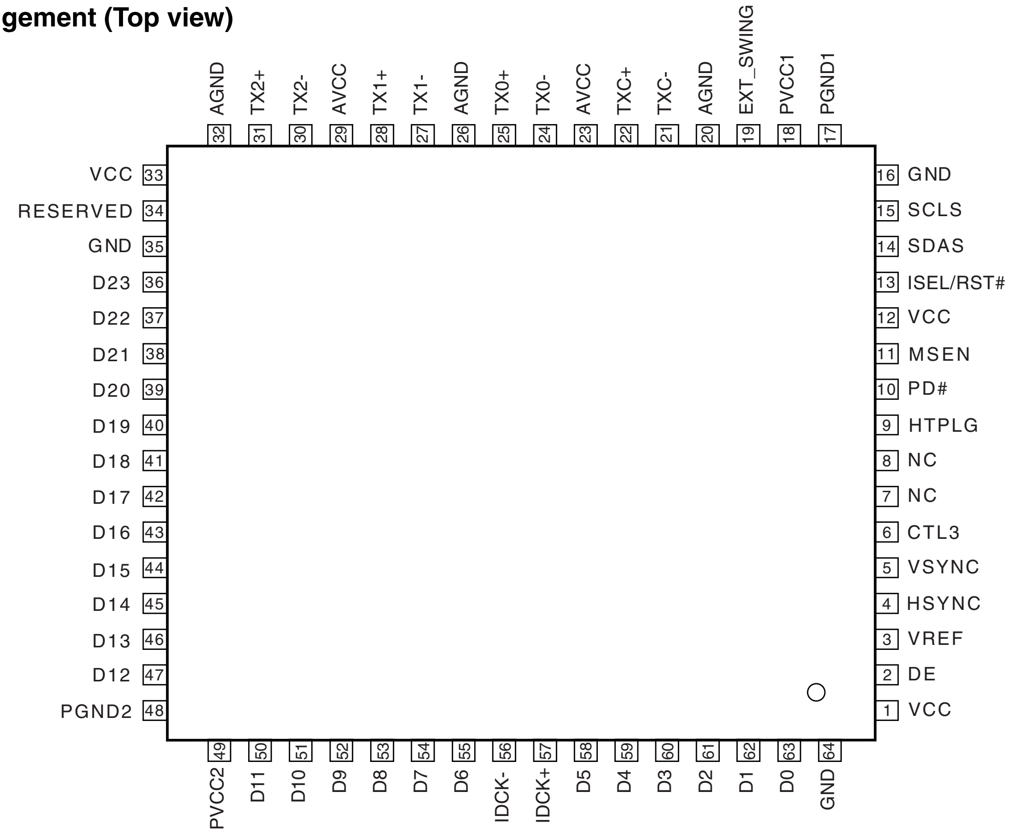
● Pin Function

No.	Pin Name	I/O	Pin Function
57-51, 40-34, 11-6, 78	A_{19} - A_0, A_{-1}	I	Address input
78-75, 72-65, 62-59, 32-19, 26-19, 16-13	DQ_{31} - DQ_0	I/O	Data input/output
80	CE	I	Chip enable
81	OE	I	Output enable
86	WE	I	Write enable
82	DW/W	I	16 bit, 32 bit mode switch
87	WP	I	Write protect
88	ACC	I	Acceleration
17, 27, 33, 64, 74, 79	VSS	–	Ground
12, 18, 28, 58, 63, 73	VCC	–	Power supply
1-5, 41-50, 83-85, 89, 90	N.C.	–	No connection

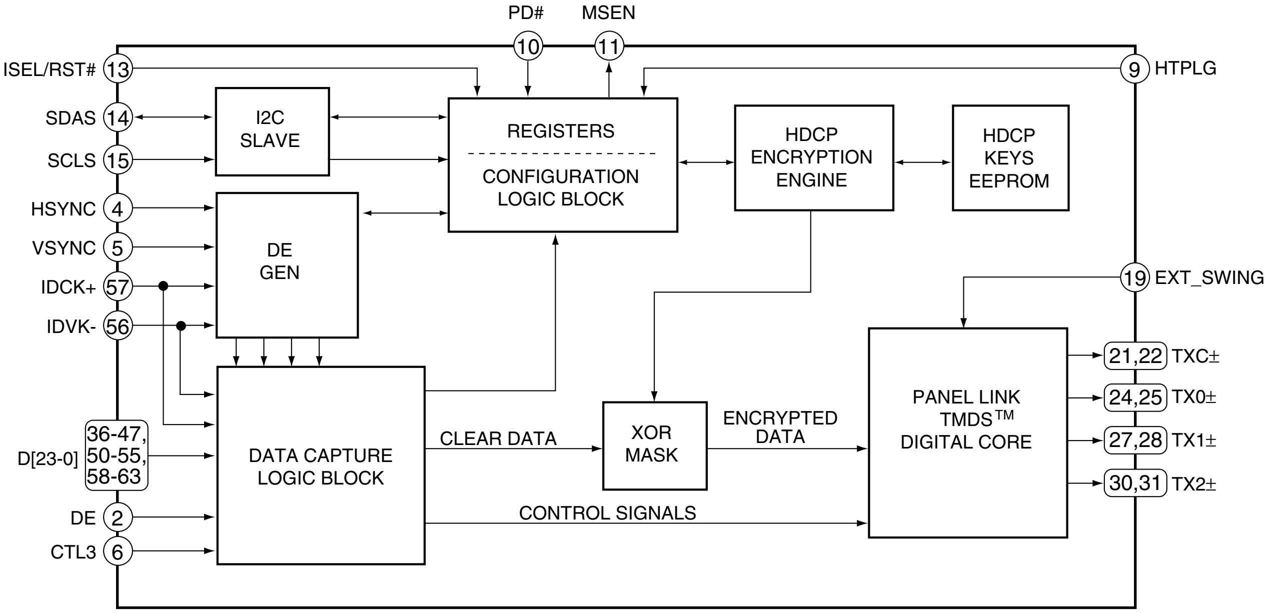
SII170BCLG64 (MR MAIN BOARD ASSY : IC7401)

- HDCP Panel Link Transmitter

Pin Arrangement (Top view)


32 AGND
31 TX2+
30 TX2-
29 AVCC
28 TX1+
27 TX1-
26 AGND
25 TX0+
24 TX0-
23 AVCC
22 TXC+
21 TXC-
20 AGND
19 EXT_SWING
18 PVCC1
17 PGND1
VCC 33
RESERVED 34
GND 35
D23 36
D22 37
D21 38
D20 39
D19 40
D18 41
D17 42
D16 43
D15 44
D14 45
D13 46
D12 47
PGND2 48
16 GND
15 SCLS
14 SDAS
13 ISEL/RST#
12 VCC
11 MSEN
10 PD#
9 HTPLG
8 NC
7 NC
6 CTL3
5 VSYNC
4 HSYNC
3 VREF
2 DE
1 VCC
49 PVCC2
50 D11
51 D10
52 D9
53 D8
54 D7
55 D6
56 IDCK-
57 IDCK+
58 D5
59 D4
60 D3
61 D2
62 D1
63 D0
64 GND

Block Diagram


PD#
MSEN
10
11
ISEL/RST# 13
SDAS 14
SCLS 15
HSYNC 4
VSYNC 5
IDCK+ 57
IDVK- 56
D[23-0] 36-47, 50-55, 58-63
DE 2
CTL3 6
9 HTPLG
19 EXT_SWING
I2C SLAVE
REGISTERS
CONFIGURATION LOGIC BLOCK
HDCP ENCRYPTION ENGINE
HDCP KEYS EEPROM
DE GEN
DATA CAPTURE LOGIC BLOCK
CLEAR DATA
XOR MASK
ENCRYPTED DATA
CONTROL SIGNALS
PANEL LINK TMDS™ DIGITAL CORE
21,22 TXC±
24,25 TX0±
27,28 TX1±
30,31 TX2±

● Pin Function

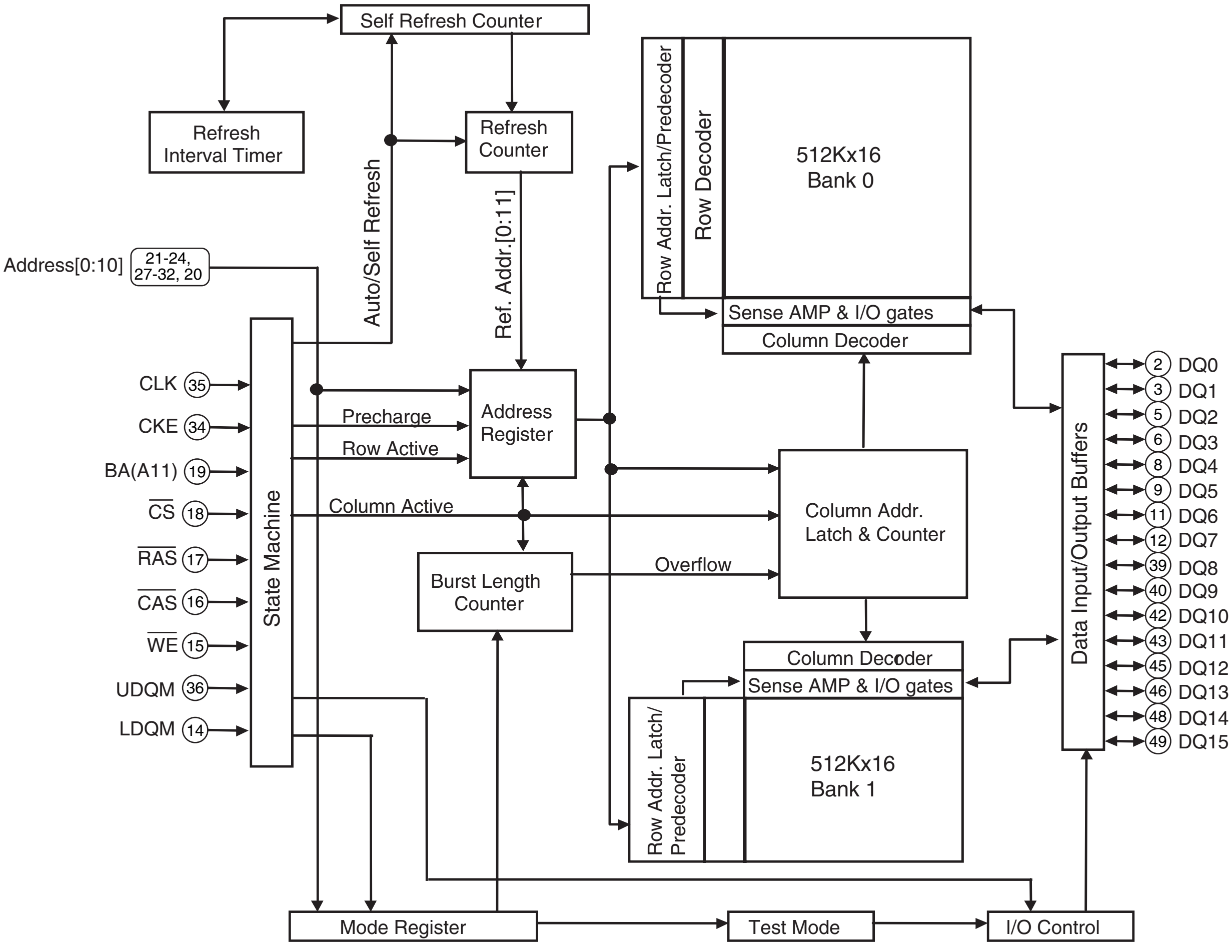
No.	Pin Name	I/O	Pin Function
1	VCC	–	Digital power supply (3.3V)
2	DE	I	Data enable
3	VREF	I	3.3V fixed
4	HSYNC	I	Horizontal sync. control signal input
5	VSYNC	I	Vertical sync. control signal input
6	CTL3	I	External CTL3 input
7	NC	–	No connection
8	NC	–	No connection
9	HTPLG	I	Monitor chrage input
10	PD#	I	Power down input (Active low)
11	MSEN	O	Monitor sense output (open-collector output)
12	VCC	–	Digital power supply (3.3V)
13	ISEL/RST#	I	I2C interface selecting input High: I2C interface is active
14	SDAS	I/O	DDC I2C data input/output
15	SCLS	I	DDC I2C clock input
16	GND	–	Digital ground
17	PGND1	–	PLL analog ground
18	PVCC1	–	Analog power supply for PLL of primary side (3.3V)
19	EXT_SWING	I	Voltage regulation adjustment
20	AGND	–	Analog ground
21	TXC-	O	Differential signal clock output of TMDS Low voltage
22	TXC+	O	Differential signal clock output of TMDS Low voltage
23	AVCC	–	Analog power supply (3.3V)
24	TX0-	O	Differential signal clock output of TMDS Low voltage
25	TX0+	O	Differential signal clock output of TMDS Low voltage
26	AGND	–	Analog ground
27	TX1-	O	Differential signal clock output of TMDS Low voltage
28	TX1+	O	Differential signal clock output of TMDS Low voltage
29	AVCC	–	Analog power supply (3.3V)
30	TX2-	O	Differential signal clock output of TMDS Low voltage
31	TX2+	O	Differential signal clock output of TMDS Low voltage
32	AGND	–	Analog ground
33	VCC	–	Digital power supply (3.3V)
34	RESERVED	I	Reserved pin for Silicon Image Normally, fixed to low.
35	GND	–	Digital ground
36	D23	I	24-bit pixel bus input
37	D22	I	24-bit pixel bus input
38	D21	I	24-bit pixel bus input
39	D20	I	24-bit pixel bus input
40	D19	I	24-bit pixel bus input
41	D18	I	24-bit pixel bus input
42	D17	I	24-bit pixel bus input
43	D16	I	24-bit pixel bus input
44	D15	I	24-bit pixel bus input
45	D14	I	24-bit pixel bus input

No.	Pin Name	I/O	Pin Function
46	D13	I	24-bit pixel bus input
47	D12	I	24-bit pixel bus input
48	PGND2	–	PLL analog ground
49	PVCC2	–	Analog power supply for filter PLL (3.3V)
50	D11	I	24-bit / 12-bit pixel bus input
51	D10	I	24-bit / 12-bit pixel bus input
52	D9	I	24-bit / 12-bit pixel bus input
53	D8	I	24-bit / 12-bit pixel bus input
54	D7	I	24-bit / 12-bit pixel bus input
55	D6	I	24-bit / 12-bit pixel bus input
56	IDCK-	I	Data clock - input
57	IDCK+	I	Data clock + input
58	D5	I	24-bit / 12-bit pixel bus input
59	D4	I	24-bit / 12-bit pixel bus input
60	D3	I	24-bit / 12-bit pixel bus input
61	D2	I	24-bit / 12-bit pixel bus input
62	D1	I	24-bit / 12-bit pixel bus input
63	D0	I	24-bit / 12-bit pixel bus input
64	GND	–	Digital ground

■ HY57V161610DTC-8 (MR MAIN BOARD ASSY : IC6106) (or K4S161622H-TC60-K)

- 16M SDRAM

● Block Diagram


Self Refresh Counter
Refresh Interval Timer
Refresh Counter
Auto/Self Refresh
Ref. Addr.[0:11]
Address[0:10]
21-24, 27-32, 20
CLK 35
CKE 34
BA(A11) 19
CS 18
RAS 17
CAS 16
WE 15
UDQM 36
LDQM 14
State Machine
Precharge
Row Active
Column Active
Address Register
Burst Length Counter
Overflow
Row Addr. Latch/Predecoder
Row Decoder
512Kx16 Bank 0
Sense AMP & I/O gates
Column Decoder
Column Addr. Latch & Counter
Column Decoder
Sense AMP & I/O gates
Row Addr. Latch/ Predecoder
512Kx16 Bank 1
Data Input/Output Buffers
2 DQ0
3 DQ1
5 DQ2
6 DQ3
8 DQ4
9 DQ5
11 DQ6
12 DQ7
39 DQ8
40 DQ9
42 DQ10
43 DQ11
45 DQ12
46 DQ13
48 DQ14
49 DQ15
Mode Register
Test Mode
I/O Control

● Pin Arrangement (Top view)

Name	Pin	Pin	Name
VDD	1	50	VSS
DQ0	2	49	DQ15
DQ1	3	48	DQ14
VSSQ	4	47	VSSQ
DQ2	5	46	DQ13
DQ3	6	45	DQ12
VDDQ	7	44	VDDQ
DQ4	8	43	DQ11
DQ5	9	42	DQ10
VSSQ	10	41	VSSQ
DQ6	11	40	DQ9
DQ7	12	39	DQ8
VDDQ	13	38	VDDQ
LDQM	14	37	NC
$\overline{\text{WE}}$	15	36	UDQM
$\overline{\text{CAS}}$	16	35	CLK
$\overline{\text{RAS}}$	17	34	CKE
$\overline{\text{CS}}$	18	33	NC
A11	19	32	A9
A10	20	31	A8
A0	21	30	A7
A1	22	29	A6
A2	23	28	A5
A3	24	27	A4
VDD	25	26	VSS

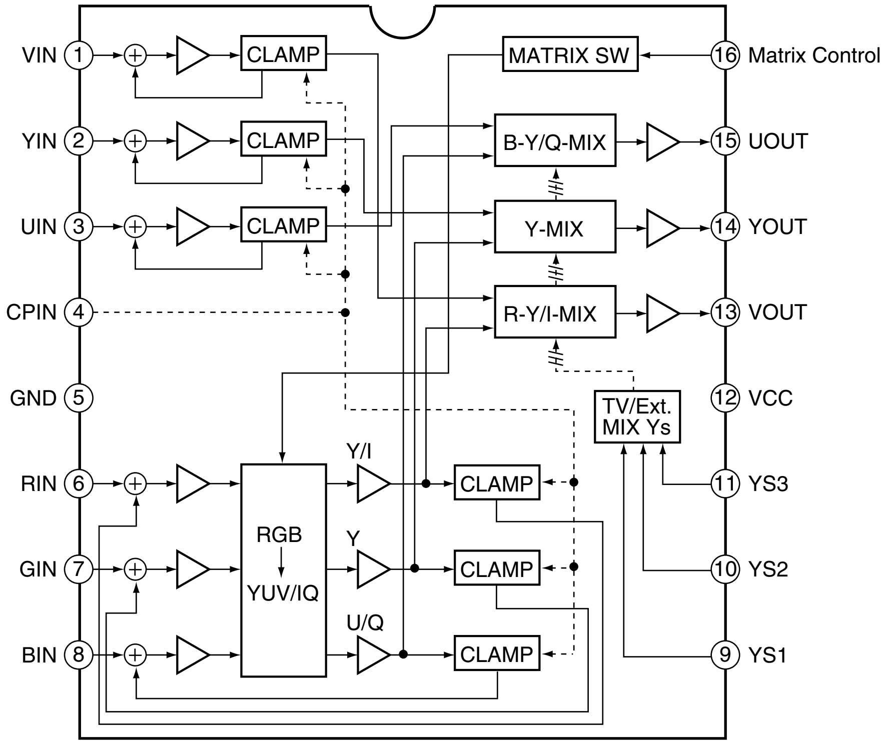
● Pin Function

No.	Pin Name	I/O	Pin Function
1	VDD	–	Power supply
2	DQ0	I/O	Data input/output
3	DQ1	I/O	Data input/output
4	VSSQ	–	Ground for DQ
5	DQ2	I/O	Data input/output
6	DQ3	I/O	Data input/output
7	VDDQ	–	Power supply for DQ
8	DQ4	I/O	Data input/output
9	DQ5	I/O	Data input/output
10	VSSQ	–	Ground for DQ
11	DQ6	I/O	Data input/output
12	DQ7	I/O	Data input/output
13	VDDQ	–	Power supply for DQ
14	LDQM	I	Data input/output mask
15	/WE	I	Write enable
16	/CAS	I	Column address strobe
17	/RAS	I	Row address strobe
18	/CS	I	Chip select input
19	A11	I	Address input
20	A10	I	Address input
21	A0	I	Address input
22	A1	I	Address input
23	A2	I	Address input
24	A3	I	Address input
25	VDD	–	Power supply
26	VSS	–	Ground
27	A4	I	Address input
28	A5	I	Address input
29	A6	I	Address input
30	A7	I	Address input
31	A8	I	Address input
32	A9	I	Address input
33	NC	–	No connection
34	CKE	I	Clock enable
35	CLK	I	System clock input
36	UDQM	I	Data input/output mask
37	NC	–	No connection
38	VDDQ	–	Power supply for DQ
39	DQ8	I/O	Data input/output
40	DQ9	I/O	Data input/output
41	VSSQ	–	Ground for DQ
42	DQ10	I/O	Data input/output
43	DQ11	I/O	Data input/output
44	VDDQ	–	Power supply for DQ
45	DQ12	I/O	Data input/output
46	DQ13	I/O	Data input/output
47	VSSQ	–	Ground for DQ
48	DQ14	I/O	Data input/output
49	DQ15	I/O	Data input/output
50	VSS	–	Ground

■ TA1287FG (AV BOARD ASSY : IC8905)

- RGB to YUV/IQ High-speed Matrix IC

● Block Diagram


VIN 1
YIN 2
UIN 3
CPIN 4
GND 5
RIN 6
GIN 7
BIN 8
CLAMP
CLAMP
CLAMP
MATRIX SW
B-Y/Q-MIX
Y-MIX
R-Y/I-MIX
TV/Ext. MIX Ys
RGB → YUV/IQ
Y/I
Y
U/Q
CLAMP
CLAMP
CLAMP
16 Matrix Control
15 UOUT
14 YOUT
13 VOUT
12 VCC
11 YS3
10 YS2
9 YS1

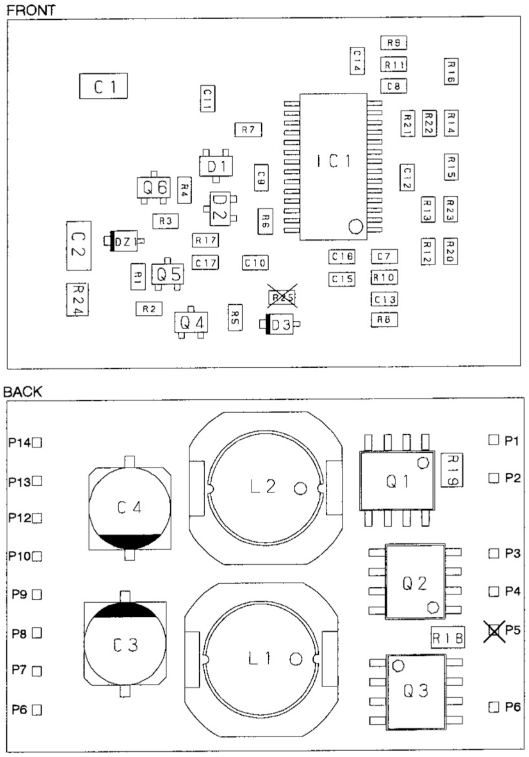
● Pin Function

No.	Pin Name	I/O	Pin Function
1	VIN	I	Input R-Y (V) or R signal through a clamping capacitor.
2	YIN	I	Input Y or G signal through a clamping capacitor.
3	UIN	I	Input B-Y (U) or B signal through a clamping capacitor.
4	CPIN	I	Input clamping pulse. Threshold: 0.75V
5	GND	–	Ground
6	RIN	I	Input R or R-Y (V) signal through a clamping capacitor.
7	GIN	I	Input G or Y signal through a clamping capacitor.
8	BIN	I	Input B or B-Y (U) signal through a clamping capacitor.
9	YS1	I	Select to switch mixing ratio. Threshold: 0.75V
10	YS2	I	Select to switch mixing ratio. Threshold: 0.75V
11	YS3	I	Select to switch mixing ratio. Threshold: 0.75V
12	VCC	–	Power supply 9V
13	VOUT	O	Output R-Y (V) or R signal.
14	YOUT	O	Output Y or G signal.
15	UOUT	O	Output B-Y (U) or B signal.
16	Matrix Control	I	This pin's voltage control the matrix coefficient for output signals. Selects the output mode.

■ AXY1088 (AV BOARD ASSY : U8502, U8503)

- DC-DC Converter Unit

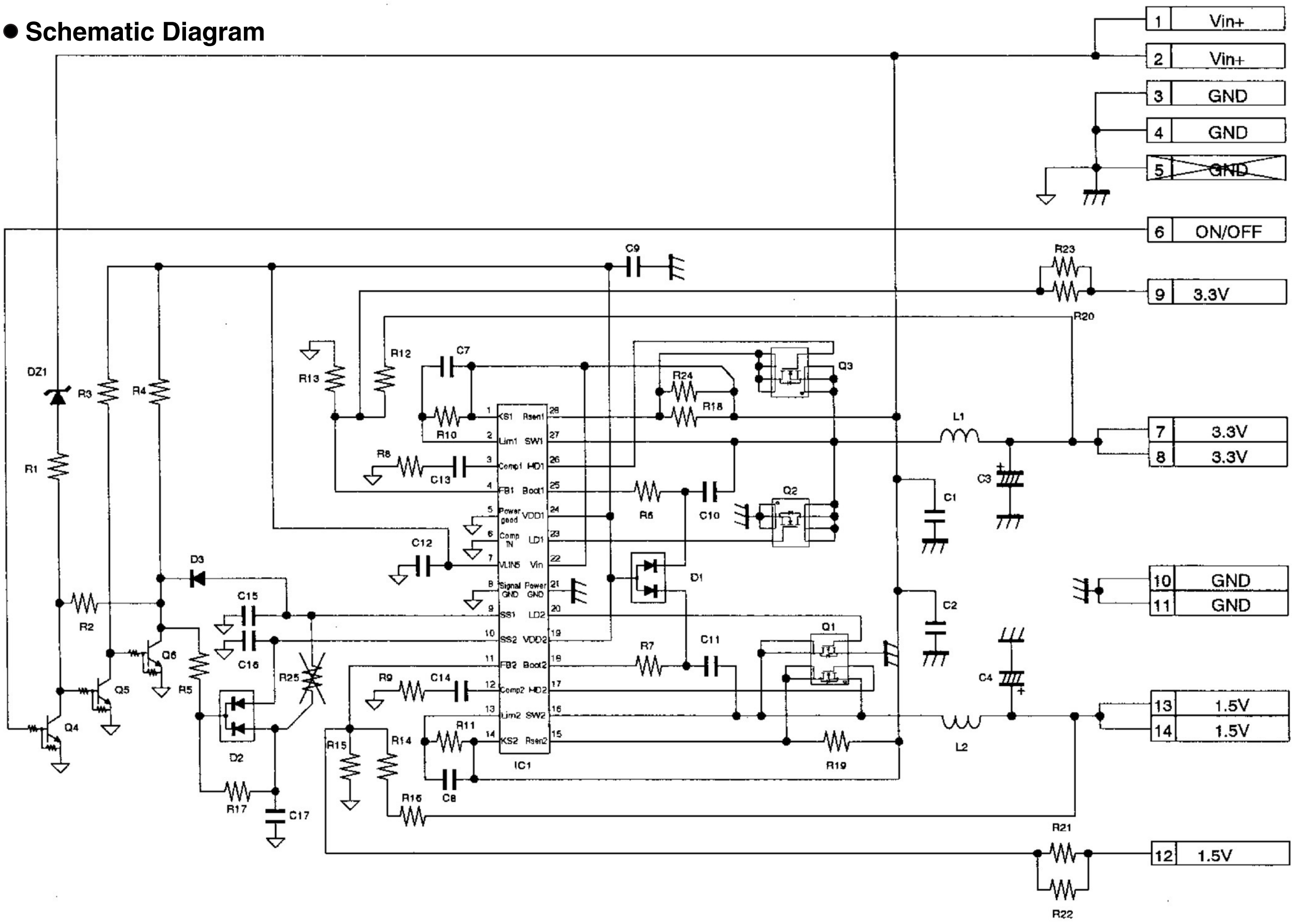
● Pin Arrangement (Top view)


FRONT
C1
C11
C14
R9
R11
C8
R16
R7
IC1
R21
R22
R14
D1
C9
C12
R15
Q6
R4
D2
R13
R23
R3
R6
C2
DZ1
R17
R12
R20
C16
C7
R1
Q5
C17
C10
C15
R10
R24
R25
C13
R2
Q4
R5
D3
R8
BACK
P14
P13
P12
P10
P9
P8
P7
P6
C4
L2
Q1
R19
P1
P2
Q2
P3
P4
C3
L1
R18
P5
Q3
P6

● Pin Function

No.	Pin Name	Pin Function
1	Vin	12V input
2	Vin	12V input
3	GND	Input side GND
4	GND	Input side GND
5	Omission terminal	Omission terminal
6	ON/OFF	Output ON/OFF
7	Vo1	3.3V output
8	Vo1	3.3V output
9	Vo1adj	3.3V variable output
10	GND	GND
11	GND	GND
12	Vo2adj	1.5V variable output
13	Vo2	1.5V output
14	Vo2	1.5V output

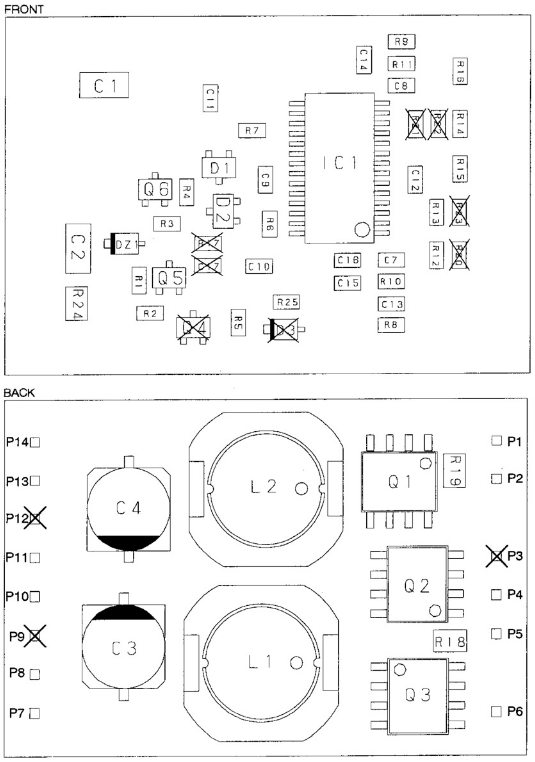
● Schematic Diagram


1 Vin+
2 Vin+
3 GND
4 GND
5 GND
6 ON/OFF
9 3.3V
7 3.3V
8 3.3V
10 GND
11 GND
13 1.5V
14 1.5V
12 1.5V
C9
R23
R20
R12
C7
R13
Q3
R24
R18
DZ1
R3
R4
R10
L1
R1
R8
C13
C1
C3
R6
C10
Q2
C12
D3
D1
C15
C2
R2
C16
Q1
Q6
R7
C11
R25
R5
Q5
C4
R9
C14
Q4
R11
L2
D2
R15
R14
R19
R17
C17
R16
C8
IC1
R21
R22
1 KS1
2 Lim1
3 Comp1
4 FB1
5 Power good
6 Comp IN
7 VLIN5
8 Signal GND
9 SS1
10 SS2
11 FB2
12 Comp2
13 Lim2
14 KS2
28 Rsen1
27 SW1
26 HD1
25 Boot1
24 VDD1
23 LD1
22 Vin
21 Power GND
20 LD2
19 VDD2
18 Boot2
17 HD2
16 SW2
15 Rsen2

■ AXY1089 (AV BOARD ASSY : U8504)

• DC-DC Converter Unit

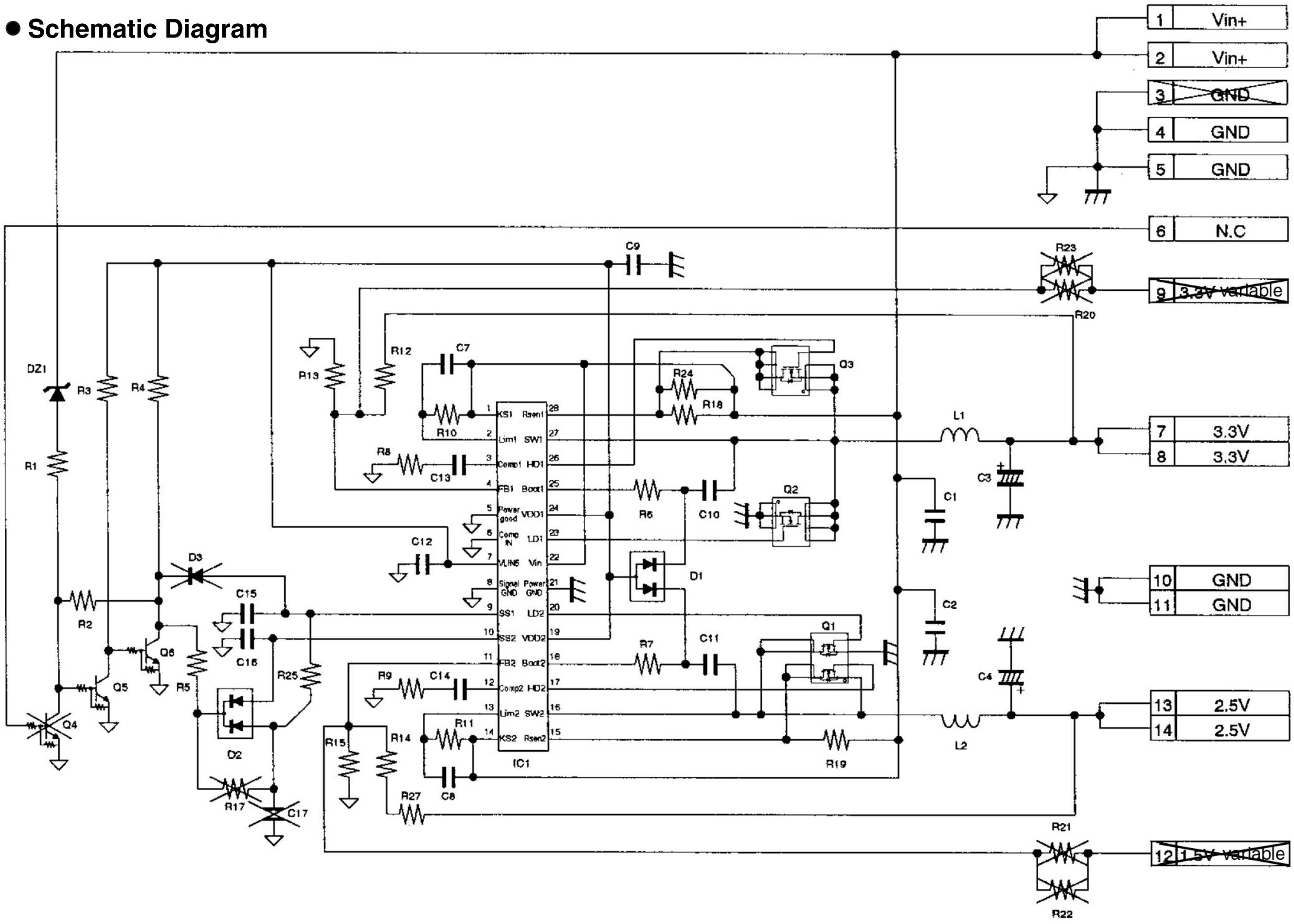
● Pin Arrangement (Top view)


FRONT
C1
C14
R9
R11
C8
R18
C11
R7
IC1
R14
D1
Q6
R4
C9
C12
R15
D2
R3
R6
R13
C2
DZ1
R1
Q5
C10
C18
C7
R12
C15
R10
R24
R25
C13
R2
R5
R8
BACK
P14
P13
P12
P11
P10
P9
P8
P7
C4
C3
L2
L1
Q1
R19
Q2
R18
Q3
P1
P2
P3
P4
P5
P6

● Pin Function

No.	Pin Name	Pin Function
1	Vin	6.5V input
2	Vin	6.5V input
3	Omission terminal	Omission terminal
4	GND	Input side GND
5	GND	Input side GND
6	N.C	N.C
7	Vo1	3.3V output
8	Vo1	3.3V output
9	Omission terminal	Omission terminal
10	GND	GND
11	GND	GND
12	Omission terminal	Omission terminal
13	Vo2	2.5V output
14	Vo2	2.5V output

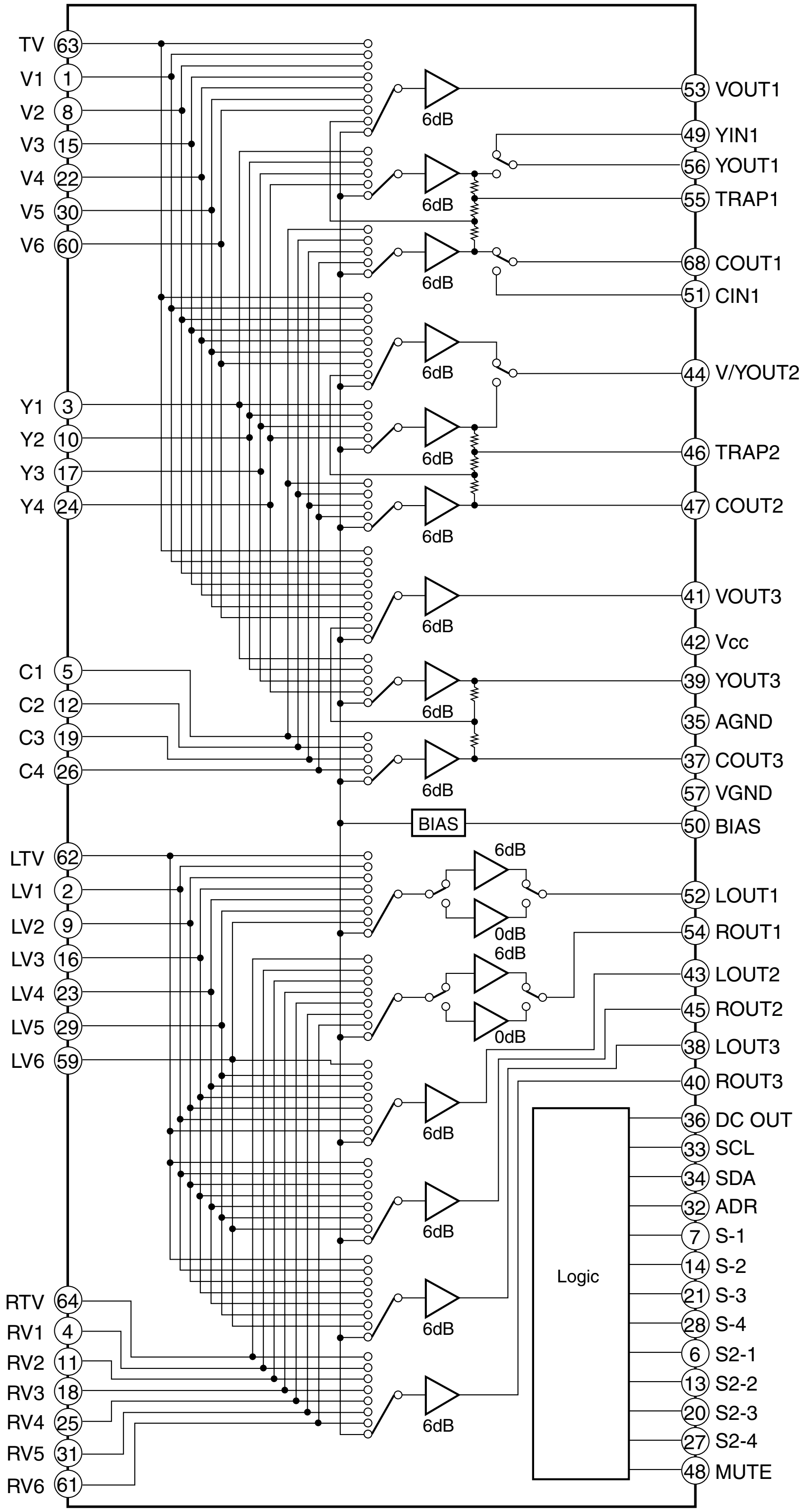
● Schematic Diagram


1 Vin+
2 Vin+
3 GND
4 GND
5 GND
6 N.C
9 3.3V variable
7 3.3V
8 3.3V
10 GND
11 GND
13 2.5V
14 2.5V
12 1.5V variable
DZ1
R1
R2
R3
R4
D3
Q4
Q5
Q6
R5
C15
C16
R25
D2
R17
C17
R13
R12
C7
R10
R8
C13
C12
C9
R9
C14
R15
R14
R11
R27
C8
IC1
KS1 Rsen1
Lim1 SW1
Comp1 HD1
FB1 Boot1
Power good VDD1
Comp IN LD1
VLIN5 Vin
Signal GND Power GND
SS1 LD2
SS2 VDD2
FB2 Boot2
Comp2 HD2
Lim2 SW2
KS2 Rsen2
R24
R18
Q3
R6
C10
Q2
D1
R7
C11
Q1
R19
L1
L2
C1
C2
C3
C4
R23
R20
R21
R22

■ CXA2069Q (AV BOARD ASSY : IC8002)

- 7-Input 3-Output Audio/Video Switch

● Block Diagram



TV 63
V1 1
V2 8
V3 15
V4 22
V5 30
V6 60
Y1 3
Y2 10
Y3 17
Y4 24
C1 5
C2 12
C3 19
C4 26
LTV 62
LV1 2
LV2 9
LV3 16
LV4 23
LV5 29
LV6 59
RTV 64
RV1 4
RV2 11
RV3 18
RV4 25
RV5 31
RV6 61
6dB
0dB
BIAS
Logic
53 VOUT1
49 YIN1
56 YOUT1
55 TRAP1
68 COUT1
51 CIN1
44 V/YOUT2
46 TRAP2
47 COUT2
41 VOUT3
42 Vcc
39 YOUT3
35 AGND
37 COUT3
57 VGND
50 BIAS
52 LOUT1
54 ROUT1
43 LOUT2
45 ROUT2
38 LOUT3
40 ROUT3
36 DC OUT
33 SCL
34 SDA
32 ADR
7 S-1
14 S-2
21 S-3
28 S-4
6 S2-1
13 S2-2
20 S2-3
27 S2-4
48 MUTE

● Pin Function

No.	Pin Name	I/O	Pin Function
63 1 8 15 22 30 60	TV V1 V2 V3 V4 V5 V6	I	Video signal inputs. Input composite video signals.
3 10 17 24 49	Y1 Y2 Y3 Y4 YIN1	I	Y/C separation signal inputs. Input luminance signals. The YIN1 pin inputs the signal obtained by Y/C separating the VOUT1 pin output.
5 12 19 26 51	C1 C2 C3 C4 CIN1	I	Y/C separation signal inputs. Input chrominance signals. The CIN1 pin inputs the signal obtained by Y/C separating the VOUT1 pin output.
62, 2 9, 16 23, 29 59, 64 4, 11 18, 25 31, 61	LTV, LV1 LV2, LV3 LV4, LV5 LV6, RTV RV1, RV2 RV3, RV4 RV5, RV6	I	Audio signal inputs.
53 41	VOUT1 VOUT3	O	Video signal outputs. Output composite video signals.
44	V/YOUT2	O	Video signal output. Either composite video signal output or luminance signal output can be selected by I2C bus control.
56	YOUT1	O	Video signal outputs. Output luminance signals.
39	YOUT3		
58 47 37	COUT1 COUT2 COUT3	O	Video signal outputs. Output chrominance signals.
52 43 38 54 45 40	LOUT1 LOUT2 LOUT3 ROUT1 ROUT2 ROUT3	O	Audio signal outputs. Zo=50 ohm (within DC ± 2mA)
6 13 20 27	S2-1 S2-2 S2-3 S2-4	–	Detects the S2-compatible DC superimposed onto the C signal. 4 : 3 video signal at 1.3 V or less 4 : 3 letter-box signal at 1.3 V or more to 2.5 V or less 16 : 9 picture squeezed signal at 2.5 V or more This pin is pulled down to GND by a 100 k ohm resistor, so the 4 : 3 video signal is selected when open.

No.	Pin Name	I/O	Pin Function
7 14 21 28	S-1 S-2 S-3 S-4	–	Composite video/S selector. The detection results are written to the status register. S signal at 3.5 V or less. Composite video signal at 3.5 V or more. This pin is pulled up to 5 V by a 100 k ohm resistor, so the composite video signal is selected when open.
32	ADR	–	Selects the slave address for the I2C bus. 90H at 1.5 V or less 92H at 2.5 V or more 90H when open.
33	SCL	I	I2C bus signal input VILmax=1.5 V VIHmin=3.0 V
34	SDA	I	I2C bus signal input VILmax=1.5 V VIHmin=3.0 V VOLmax=0.4 V
36	DC_OUT	O	Outputs the S2-compatible DC superimposed onto the COUT3 output. The DC is superimposed by connecting this pin to the COUT3 output via a capacitor. Control is performed by the I2C bus. When 0 V is output, Q1 is ON and the impedance is 5 k ohm. S2 protocol output impedance of 10 ± 3 k ohm is realized by attaching external resistance of 4.7 k ohm. DC_OUT (bus) Output DC 0 4.5 V 1 0 V 2 1.9 V 3 4.5 V
55 46	TRAP1 TRAP2	–	Connects trap circuit for subcarrier.
48	MUTE	–	Audio signal output mute. Mute OFF at 1.5 V or less Mute ON at 2.5 V or more Mute OFF when open.
50	BIAS	–	Internal reference bias (VCC/2). Connect to GND via a capacitor.

7.4 CLEANING

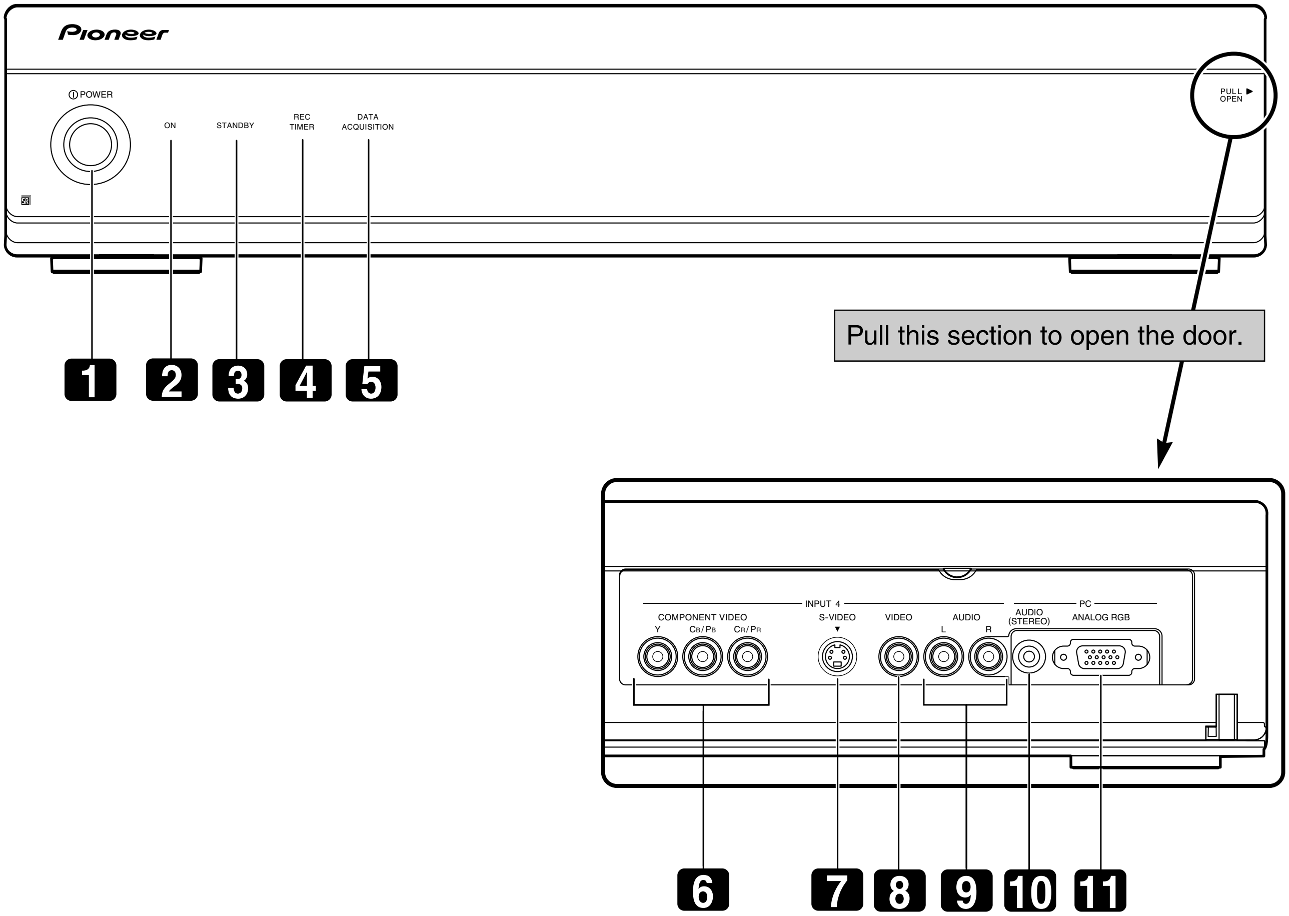
Before shipping out the product, be sure to clean the following positions by using the prescribed cleaning tools:

Position to be cleaned	Cleaning tools
Fans	Cleaning paper : GED-008

8. PANEL FACILITIES

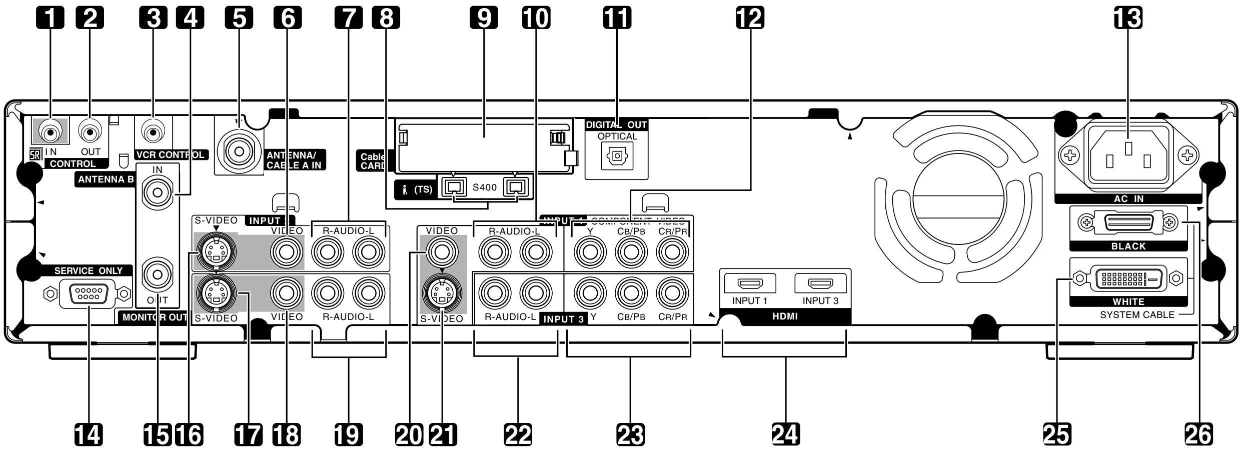
Media Receiver

Front view


Pioneer
POWER
ON
STANDBY
REC TIMER
DATA ACQUISITION
PULL OPEN
Pull this section to open the door.
1
2
3
4
5
INPUT 4
COMPONENT VIDEO
Y
CB/PB
CR/PR
S-VIDEO
VIDEO
AUDIO
L
R
PC
AUDIO (STEREO)
ANALOG RGB
6
7
8
9
10
11

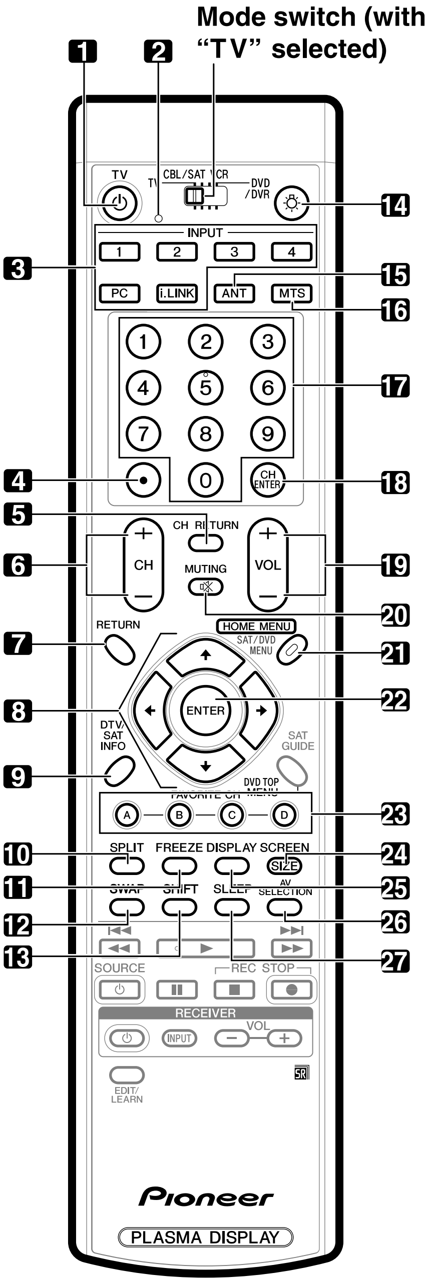
1 **POWER** button
2 POWER ON indicator
3 STANDBY indicator
4 REC TIMER indicator
5 DATA ACQUISITION indicator
6 INPUT 4 terminals
(COMPONENT VIDEO: Y, C_B/P_B, C_R/P_R)
7 INPUT 4 terminal (S-VIDEO)
8 INPUT 4 terminal (VIDEO)
9 INPUT 4 terminals (AUDIO)
10 PC INPUT terminal (AUDIO)
11 PC INPUT terminal (ANALOG RGB)

Rear view


1
2
3
4
5
6
7
8
9
10
11
12
13
SR
IN
OUT
CONTROL
VCR CONTROL
ANTENNA B
IN
ANTENNA/
CABLE A IN
Cable
CARD
(TS)
S400
DIGITAL OUT
OPTICAL
AC IN
BLACK
SERVICE ONLY
OUT
MONITOR OUT
S-VIDEO
INPUT 2
VIDEO
R-AUDIO-L
VIDEO
R-AUDIO-L
INPUT 1
COMPONENT VIDEO
Y
CB/PB
CR/PR
S-VIDEO
VIDEO
R-AUDIO-L
S-VIDEO
R-AUDIO-L
INPUT 3
Y
CB/PB
CR/PR
INPUT 1
INPUT 3
HDMI
WHITE
SYSTEM CABLE
14
15
16
17
18
19
20
21
22
23
24
25
26

1 CONTROL IN terminal
2 CONTROL OUT terminal
3 VCR CONTROL terminal
4 ANTENNA B IN terminal
5 ANTENNA/CABLE A IN terminal
6 INPUT 2 terminal (VIDEO)
7 INPUT 2 terminals (AUDIO)
8 i.LINK terminals
9 Cable CARD slot
10 INPUT 1 terminals (AUDIO)
11 DIGITAL OUT terminal (OPTICAL)
12 INPUT 1 terminals (COMPONENT VIDEO: Y,CB/PB, CR/PR)
13 AC IN terminal
14 RS-232C terminal (used for factory setup)
15 ANTENNA B OUT terminal
16 INPUT 2 terminal (S-VIDEO)
17 MONITOR OUT terminal (S-VIDEO)
18 MONITOR OUT terminal (VIDEO)
19 MONITOR OUT terminals (AUDIO)
20 INPUT 1 terminal (VIDEO)
21 INPUT 1 terminal (S-VIDEO)
22 INPUT 3 terminals (AUDIO)
23 INPUT 3 terminals (COMPONENT VIDEO: Y,CB/PB, CR/PR)
24 HDMI terminals (INPUT1/INPUT3)
25 SYSTEM CABLE terminal (WHITE)
26 SYSTEM CABLE terminal (BLACK)

Remote control unit


Mode switch (with "TV" selected)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
TV
CBL/SAT
VCR
DVD/DVR
INPUT
1
2
3
4
PC
i.LINK
ANT
MTS
CH ENTER
CH RETURN
CH
VOL
MUTING
RETURN
HOME MENU
SAT/DVD MENU
ENTER
DTV/SAT INFO
SAT GUIDE
DVD TOP MENU
FAVORITE CH
A
B
C
D
SPLIT
FREEZE
DISPLAY
SCREEN SIZE
SWAP
SHIFT
SLEEP
AV SELECTION
SOURCE
REC
STOP
RECEIVER
INPUT
VOL
EDIT/LEARN
SR
Pioneer
PLASMA DISPLAY

With the mode switch set to TV

1 **TV ⏻** : Turns on the power to the Plasma Display or places it into standby mode.

2 Transmission confirmation LED

3 **INPUT** : Selects an input source of the Plasma Display. (INPUT 1, INPUT 2, INPUT 3, INPUT 4,PC, i.LINK)

4 **• (dot)** : Enters a dot.

5 **CH RETURN** : Returns to the previous channel.

6 **CH +/–**: Selects the channel.

7 **RETURN** : Returns to the previous menu screen.

8 **↑/↓/←/→**: Selects a desired item on the menu screen.

9 **DTV INFO** : Shows more information on DTV programs.

10 **SPLIT** : Switches the screen mode among 2-screen, picture-in-picture, and single-screen.

11 **FREEZE** : Freezes a frame from a moving image. Press again to cancel the function.

12 **SWAP**: Switches between the two screens when in the 2-screen or picture-in-picture mode.

13 **SHIFT** : Moves the location of the small screen when in the picture-in-picture mode.

14 ☼ : When pressed, all buttons on the remote control unit will light. The lighting will turn off if no operations are performed within about 5 seconds. This button is used for performing operations in dark places.

15 **ANT** : Selects the antenna (A, B).

16 **MTS** : Selects the MTS/SAP.

17 **0 – 9**: Selects the channel.

18 **CH ENTER**: Executes a channel number.

19 **VOL +/–** : Sets the volume.

20 🔇 **MUTING** : Mutes the sound.

21 **HOME MENU**: Displays the menu screen.

22 **ENTER**: Executes a command.

23 **FAVORITE CH (A, B, C, D**):
Selects any of the four preset channels. See page 37 for details to set the FAVORITE CH While watching, you can toggle the set channels by pressing **A**, **B**, **C** and **D**.

24 **SCREEN SIZE**: Selects the screen size.

25 **DISPLAY**: Displays the channel information.

26 **AV SELECTION** : Selects audio and video settings. (AV mode: STANDARD, DYNAMIC, MOVIE, GAME, USER. PC mode : STANDARD,USER.)

27 **SLEEP**: Sets the sleep timer.

NOTE

- When using the remote control unit, point it at the Plasma Display
- See pages 62 to 68 for operating buttons not listed on this page.